



SATURDAY, DECEMBER 4, 1875.

Contributions.

The St. Louis Railroad Convention.

ST. LOUIS, November 25, 1875.

TO THE EDITOR OF THE RAILROAD GAZETTE.

What has been styled the "Great National Railroad Convention" has just broken up, and its members are speeding home, satisfied with the result of their labors. The convention began its session at 11 a. m. on the 23d. Twenty-nine States and territories were represented, as also many chambers of commerce, boards of trade, &c., so that the number of delegates who presented credentials and were admitted to the chamber exceeded eight hundred. Among the delegates were many of national fame, members of congress, senators, generals, and men of local reputation. Your correspondent has never looked upon a more imposing, intellectual body of men. The principal representation, as might have been expected, was from the South; but whether from the South or North, East or West, every delegate seemed enthusiastically in favor of a grant of aid to the Texas & Pacific Railway.

The first day of the session was taken up in routine organization. The second day was spent in passing complimentary resolutions, returning thanks, and in debate on the report of the committee on resolutions. The convention seemed, with one exception, to be unanimously in favor of adopting the resolutions as reported: the one exception was General Harrison, of Waco, Texas, who wanted an amendment to the effect that the company should be compelled to build a branch from some convenient point west of Austin to that place, and thus connect with tide-water by means of the roads now constructed to Galveston. The amendment was objected to by other members as tending to overload the project and thus ensure its rejection by Congress. Several members from Texas, on those grounds, appealed to General Harrison to withdraw, but he would not. The vote, which was taken by States, resulted unanimously for the resolutions as reported.

On the evening of the 23d, the delegates were banqueted by the merchants of St. Louis, and on the 25th all who remained in the city were treated to an excursion on the river and to the Vulcan Iron Works. Those members with whom your correspondent held conversation expressed themselves highly gratified by the open-handed hospitality of St. Louis, and the sentiments of fraternity to the South which find such free expression here. They were unanimously of opinion that this convention as a body, and its members as individuals, will bring to bear on Congress an influence which will compel the passage of the desired act. The point that will be most strongly urged is that this is a measure of justice due to the South, and that a denial would be taken as an indication of selfishness on the part of the North. All Southern members will vote for the bill, and by use of the argument referred to probably enough Northern members can be secured to carry the measure. The attempt is to be made as early as possible after Congress convenes.

Colonel Scott with a large following was in the city during the session, but took no prominent part, except that at the banquet he made a speech on transcontinental railways. A ludicrous mistake was made in the painting of a huge map which stretched across the hall behind the platform, on which was represented the route of the Texas & Pacific Railway. The upper half of the map, which took in the Union Pacific, was colored dark and gloomy, excepting the snow-covered course of the Union Pacific. The lower half, which included the Southern States, the course of the Texas & Pacific and Cuba (with the Union flag flying) was bathed in glorious sunlight. Along the course of the Texas & Pacific grew palms and tropical vegetation. The Texas & Pacific Railway was shown in thick red streaks, with thick black streaks for its connections, and as those depicted ran from New York city, through Pennsylvania, Ohio, Indiana, Illinois, Saint Louis, the Indian Territory, New Mexico, Arizona and California, an alternative route was shown from St. Louis through Arkansas and from Memphis to Shreveport and New Orleans; but no connection with the other Southern States could be seen—all east of Alabama lay bare. As the appeal for support was being made to the very States that here were shown without connections, the absurdity of the map was apparent. Some wise man saw the map, and, realizing the fact that the naked truth is not always well received, set the painter to work again. Lo! next morning, i. e., the second day of the convention, all the Southern States were covered with a network of thick lines, indicating connections with the Texas & Pacific.

Every seaport in the South hopes that it will, on the completion of the Texas & Pacific Railway, become a great entrepot for the commerce between Europe and the East. Galveston will become a great port and a great city. It has a magnificent harbor and has good rail communications; but other Southern ports must live on hope and dreams so far as the Texas & Pacific Railway is concerned.

The convention hall was decorated with evergreens and tropical verdure, procured from some hot-house, but supposed to be from the route of the Texas & Pacific.

Some comments have been made on the fact that the name of the Hon. Isaac H. Sturgeon was omitted from the list of officers of the convention. His friends claim that he was entitled to some such mark of honor, inasmuch as he was a prominent member of the great convention held here in '48, and was also one of the originators of this convention and an efficient worker in its organization. It was by Mr. Sturgeon's own desire that his name was omitted. His official duties as Reve-

nue Collector occupy the whole of his time, and he is well satisfied with the progress made thus far in the work which he believes will add much to the material prosperity of this city. It was this work he sought to achieve, and that gained he cares nothing for empty title.

Everybody here and in the convention insists upon calling the projected railway the *Southern Pacific*, which is the name of a branch of the Central Pacific,* now under construction in California. Our road is "*The Texas & Pacific*."

I have not worried your readers with any facts and statistics regarding the road. These have been published and scattered broadcast until we are all sick of them, and concerning them nothing new is to be said.

Publicity in Railroad Management.

TO THE EDITOR OF THE RAILROAD GAZETTE:

The method proposed and ably advocated by Mr. Charles F. Adams, Jr., for the control of railways, by legislation requiring accurate accounting and publicity in all their operations, seems to be the most direct and simple, as it would doubtless prove to be the most effective, method which has been suggested or experimented with. It is clearly in harmony with our form of government and with our modes of procedure in other affairs. The appeal to reason is surest of any to compel justice in the end.

There would seem to be no valid reason why the affairs of all public, or, as it is the fashion to say, *quasi public* corporations ought not to be fully exposed to the light of day. It is the privilege of every person to buy or sell his stocks and bonds, and the fullest knowledge concerning them should be accessible to all, instead of being reserved for the private information of a select body of directors, who, under the present system of concealment, may and do practice deceit and fraud, as you have too often the pain of recording. The complete and full exposure of the operations of corporations would, if the business were well managed, commend the officers and the efforts of the corporations to the good opinion and support of persons accustomed to affairs; losses shown under such circumstances would command the sympathy of the public, instead of, as now, exciting its suspicion. If this publicity had existed relative to the railway corporations generally, it is not probable that the excitement against them which demagogues were able so easily to raise in the West could have been stirred up by any ingenuity, for the facts known or accessible to all would have convicted those who made the damaging charges.

There can be no simpler method adopted by legislation of obtaining the knowledge necessary to the framing of wise laws than to insist upon a full and explicit statement of the proceedings had under charters granted by the Legislature; and this statement should extend further than any yet voluntarily made by railway companies.

If the proceedings of board meetings or those of the executive committee were to be laid open to the gaze of the public, or even to the unsuspecting stockholders, there would be some matters made known which would not receive the approval of the majority, and might often save them from losses.

Let the railway companies be called upon for a statement of the passes issued, for instance, and we doubt if either public or proprietors would be satisfied of their beneficial effects.

There would be some hesitation also on the part of eminent judges and honorable statesmen before accepting such trifling benefits, if the annual reports were to parade their names as the recipients of these favors; while a simple calculation would enable the owners of the property to estimate for themselves the probable advantages which they derived from the courtesies extended. These returns would also, to the officers of many companies, afford information concerning the extent to which a private reputation for liberality is founded upon the squandering of the revenue of the corporation.

This suggestion may be indefinitely extended, so as to require publicity as to contracts of all kinds, with the same good results resulting, probably, that have been found to obtain from the open dealings required of our municipal corporations. At least where nothing is concealed, there is no room left for unfounded suspicions.

Yours, interestedly,

DAYLIGHT.

The Safety Switch.

TO THE EDITOR OF THE RAILROAD GAZETTE:

I had occasion recently to visit a court house in Massachusetts and found there a case on trial in which damages were claimed for an accident that had occurred at a misplaced so-called "safety switch."

Without expressing any opinion as to the merits of this case, I will call your attention to the probable danger there is in the use of this switch as it was, and probably is, universally constructed.

The shifting or sliding rails have, at their movable ends, a peculiarly shaped piece of cast iron, from 6 to 8 feet long, bolted or attached to the insides and outsides of both rails. They are, in fact, when combined with the bars of rail, a shifting cast-iron frog. When the switch is properly set the locomotive, tender and cars pass over the steel or wrought-iron rails with a degree of certainty and the wheels do not come in contact with the cast-iron parts; but when the switch is misplaced the locomotive or cars are so guided as to run over, for a short distance, say a few feet, one side or the frog part, and it is a substitute for the rails. This cast iron receives the shock and should support the engine and cars.

In the instance referred to, the switch was broken into pieces of various lengths and made a bad appearance.

* Not a branch of the Central Pacific. It is entirely a distinct road, extending from San Francisco southeastward toward the mouth of the Colorado River, where it will, if extended, meet the route of the Texas & Pacific at Fort Yuma, 773 miles from San Francisco, about 300 miles being now completed. It nowhere touches the Central Pacific, and is neither owned nor worked by that corporation, though the same men control both corporations.—EDITOR RAILROAD GAZETTE.

In these days of large and heavy locomotives, with fast-running trains, very strong and well supported rails, frogs and switches are required. Cast-iron rails would be almost sure to break, and no doubt would be considered to be a very improper thing to use.

An accident so seldom occurs now-a-days at a switch or turnout as hardly to attract attention; the kind of switch and the material it is made of are not, in all cases, taken into consideration or questioned.

It was said that the switch referred to broke the first time a train of cars ran over it in the wrong or misplaced direction. An attempt was made to prove the cast iron to be of poor quality, but I doubt if this would have helped the matter.

The plan or arrangement of the switch may be well enough, but the question is, would it not have been better and safer to have the frog parts made of good forged iron, or of as good material as the rails?

Cast iron has been used, for many years, to a great extent about the track, for chairs or the rail seats; but it is now superseded by wrought iron. Cast-iron frogs, even as heavy as they were made, have been changed for cast steel, and for frogs made up of steel or iron rails and plates of wrought iron. Experience and good reasons have no doubt led to the changes or improvements, and why should not the switch, all parts of it, be made of the best material, or stronger and tougher metal than cast iron? G.

Nov. 8, 1875.

Address of the General Convention of Southern Railway and Steamship Lines to the Public.

At a meeting of the Southern Railway and Steamship Association, held in Atlanta on the 13th of October, 1875, the following address, prepared by General H. Haupt, was adopted by the Association, and ordered to be published, to which the attention of the public is respectfully invited.

JOSEPH E. BROWN, President.

CHARLES A. SINDALL, Secretary.

The general depreciation of railway property, the losses already sustained, and the still more serious dangers impending, have induced the transportation lines, in general convention assembled, to present to the people of the Southern States, and to their representatives in the several State legislatures, an explanation of the condition of the railway interest, and of the necessity of prompt action for its protection.

This appeal is made the more readily from a conviction that the course pursued by the convention is not only right in itself, but is imperatively demanded by the necessities of the situation, and that an enlightened public sentiment will fully approve and aid in carrying into effect the measures that have been adopted, and which are calculated in their operation to promote the interests of the whole community.

Railways have become closely identified with the prosperity of our country; they have been the agents of incalculable good; they have accelerated progress in almost every department of human industry; they have scattered far and wide the products of labor, prostrated forests, reclaimed swamps, covered the wilderness with life-sustaining vegetation, and peopled it with industrious freemen; they have promoted social intercourse among the people of the land, aided their improvement in arts and science, and largely advanced the general happiness and prosperity.

It is too much to ask in return that the agent that has accomplished so much good in the past, and which promises more in the future, shall be sustained by those who are the recipients of the benefits which it confers?

Investments are no longer made in Southern railway securities with any expectation of realizing therefrom any regular and certain income. It becomes a matter of serious importance to inquire into the cause of this unfortunate condition of things, and if possible apply the remedy. The interests of railway companies do not alone require it; every other interest dependent for its advancement upon railway progress, demands that these vitally essential improvements be sustained.

It is proposed, therefore, to present an exhibit of the present condition of Southern railroads; the causes that have led to their general financial embarrassment, and the measures necessary to be adopted to improve their condition.

No accurate statistics are at present available for the preparation of a perfectly reliable statement, and time will not permit an application to the various railroad corporations for a report of their present condition. It is necessary, therefore, to use the material furnished by the most recent edition of Poor's Railway Manual, correcting such errors as are known to exist. The statement herein submitted is designed only to give a general idea of the financial condition of Southern railroads, and is probably a sufficient approximation to accuracy for this purpose.

Since the date of reports used in the compilation of the Manual several important roads have been compelled to pass their dividends without payment, and they have accordingly been stricken from the list of dividend-paying roads.

In some instances the earnings over operating expenses, and the amounts paid for interest and taxes, have not been reported. The results, therefore, cannot be claimed to be strictly accurate, but they will serve to give a general and closely approximate idea of the depressed condition of Southern railway property.

The Manual, from which the statistics are compiled, gives the number of railroads in the Southern States as eighty-nine (89).

The aggregate number of miles.....	14,870
Capital stock.....	\$227,296,000
Bonded debts.....	292,837,000
Floating debts.....	23,134,000
Total bonded and floating debts.....	344,872,000
Total stock and debts.....	871,908,000
Net earnings over operating expenses.....	16,341,000
Interests paid on debts.....	7,344,000
Dividends on stock and rentals.....	877,212

The interest paid on the debts may have been in excess of the \$7,344,000 reported, but much less than the \$16,341,000 net earnings over operating expenses, as many roads have defaulted, and are in the hands of receivers, the earnings of which are applied to betterments in construction and equipment, and to taxes, when not included in operating expenses.

Many of the companies in their reports charge the laying down of iron, the construction of a bridge which has been burnt down, or the purchase of new engines, to extraordinary expense, and do not count this in the operating expense. Doubtless much of the \$16,341,000, above mentioned as net earnings, has gone into this sort of expense, which is in fact only a part of the operating expenses of the roads, leaving a much less actual net than the figures above mentioned.

The net earnings of \$16,341,000, if correct, would pay eight per cent. interest on \$204,262,000 of capital, leaving \$367,706,000 without return. But if Poor's Manual statement of interest and dividends actually paid be assumed as correct, leaving balance of the sum called net earnings to be used in payment of the kind of extraordinary expense above mentioned, it would pay interest on only \$102,639,000, and leave \$469,329,000 without return, either in interest or dividends.

The causes of railway embarrassment have been:

1. The multiplication of competing lines.
2. Hostile legislation.
3. Damages, legal expenses, exorbitant verdicts, and taxation.
4. Reckless competition.

To which might be added, as having some influence on results, diminished production and consumption, caused by loss of population and of property.

In a country the products of which are chiefly agricultural, the volume of traffic is proportioned to the number of laborers, and is but little affected by rates.

Where a business exists between two given points sufficient to sustain a single road, and pay dividend on stock, the effect of a second line, even if rates are maintained, is certain to divide business, and thereby necessarily to render the older road more or less unprofitable. It is only where a new business can be developed, and the volume of tonnage largely increased, as in mining districts, that a new line can be prevented from inflicting serious injury upon those previously constructed.

The multiplication of trunk lines to business centres, therefore, although greatly beneficial in promoting local development, and in increasing the value of property in the territories traversed by such lines, has not created new business to any considerable extent, but has attracted population from other localities, without largely increasing the aggregate volume of Southern products. Such increase can only be secured by immigration from Northern States or from foreign countries; and no large increase in the aggregate volume of traffic on Southern roads can be expected, except from a large increase of population derived from such sources.

The experience of twenty-five years has clearly demonstrated that established rates at points of competition, however small the margin of profit above actual cost of movement, cannot be maintained by agreements or resolutions of conventions. The rivalry of soliciting agents, the desire to secure business regardless of income, has rendered unavailing all efforts to protect rates, and the only plan that has been found effective in practice has been to dispense with soliciting agents altogether, and agree upon an amicable division of business between competing lines.

The object of this arrangement, and its effects upon the public interest, have been generally misunderstood, and the practice of pooling has been denounced as an imposition and extortion. This is an error. If it be conceded that railroad corporations have any rights whatever, they certainly have the right of self-protection, the right to claim from their patrons a reasonable remuneration for capital invested and services rendered, the right to pay their employees, and the interest on their debts, the right to avert insolvency and financial ruin, which results are inevitable where corporations are compelled to perform service at less than cost by reckless competition forced upon them.

Unjust and oppressive legislation has resulted to a great extent to the practical confiscation of railroad property. Charters have been granted and inducements offered for the construction of roads. Investments have been made in their securities, with a reasonable assurance of safety and permanency, when the value of the property has often been destroyed, and widows and orphans reduced to poverty, by granting charters for unnecessary competing lines, or by the imposition of restrictions which prevented the successful and remunerative operation of existing roads.

Frequent as have been the attempts, it has been found impossible to prescribe general rules, by legislation, for the management of railroad transportation. The reason is obvious. Each case presents peculiarities which influence the adjustment of rates, and offers problems in railway economics that must be solved by data different in each case, and not susceptible of solution by application of general principles.

The favorite maxims of legislators, that unjust discriminations must be prevented; that local rates per mile shall not be higher than through rates; that transportation for a given distance on one part of a road shall not exceed the charge for an equal distance on any other part, are all founded in ignorance and error. There is no disposition to impose unjust discriminations by railroad companies against individuals or localities. The cost of transportation for short local freight is always greater, and may be ten times as great per mile as through freight; and to move freight a given distance at one end of a line may require a train or cars to be sent empty over the whole road from the other end.

The rates on through freight are generally controlled by vessels or steamships, using the untaxed highway of the ocean, free from legislative interference and restrictions; and the effects of a requirement that local rates per mile should not be more than through would cause railroad companies to abandon all through business and largely increase the local rates to make good deficiencies, for even at the low rates at which the through traffic is carried there is generally a profit over the actual cost of train service and wear of rails, which enables the railroad managers to keep the local rates within moderate limits.

It is believed that no attempts, by legislative bodies, to prescribe rates and rules to govern transportation have ever been successful, and no law has been passed with this object in view that did not require repeal or modification at the next session. Yet the experiments continue to be repeated, and railroad companies and the public continue to suffer from the attempts to correct imaginary evils by stringent legislation.

Charters have been granted exempting companies from taxation, and capital advanced for construction in reliance upon the good faith of the States, yet even in the case of roads which have appreciated the value of other taxable property more than their whole cost, and which are unable to pay either interests or dividends, attempts have been made to levy and collect exorbitant taxes, trains have been seized by sheriffs, traffic interrupted, and expensive litigation imposed upon such companies to protect the rights guaranteed by their charters. Courts and juries have also entered the lists as adversaries of railroads; suits have been instituted by counsel whose fees were contingent upon success; damages unjust, excessive, sometimes vindictive, have been awarded for accidents and injuries often resulting from gross carelessness and violation of rules by the injured party, and which no care on the part of the railroad companies could have prevented. The prejudices of juries, generally unfounded, are against corporations, and whatever the merits of the case, the plaintiff, in some localities, is almost sure of a verdict in his favor. Juries under oath frequently give three or five times the damages against a railroad company, which they would in a like case give against an individual. This is cruel injustice. The effect of it is, under the sanction of law, and the solemnity of an oath, to confiscate most unjustly the property of widows and orphans, and other innocent persons, who by public meetings and other public demonstrations have been induced to put their property into railroads, for the benefit of the public, under the delusive hope, encouraged in many cases by the very men who now rob them, to believe that it would, when invested, be protected by the legislature and the courts.

But, however serious the losses that have been sustained by railroad companies from the causes enumerated, one more potent for evil than all the rest remains to be considered.

Competition at prices below the standard of fair remuneration has been the most fatal error into which railroad companies have fallen. The popular opinion that a reduction of rates leads to increased business and enlarged receipts is not true in the Southern States. There is, of course, a maximum limit so high as to exclude business entirely; there is

another so low that the returns will not pay expenses. Between these extremes lies the medium which yields the maximum of net revenue. But this point is not fixed; it is not only variable upon different roads, but even on the same road at different seasons. It can only be ascertained, in each case, by careful observation and experiment; and the results obtained upon one road may not be—and in all probability will not be—applicable to any other. It certainly cannot be fixed and prescribed by legislation with even a distant approximation to equity.

The principle that reduced rates increase receipts is true only in cases where new mining and manufacturing industries can be developed, and its application requires an intelligent and careful adaptation of the tariff to the character, quantity and peculiarities of the traffic which is to be affected by it.

The experience of all Southern roads indicates that the through rates have fallen below the standard of fair remuneration, and that increased charges, to a moderate extent and without exceeding rates formerly established, are necessary to maintain them in a condition of safety and efficiency for the public service.

Competition at non-paying rates fails to secure the objects usually sought; such efforts can be successful in increasing business only until rival lines are forced to pursue a similar course. Where this is done, as it always will be, the expected advantages are lost and a new cut is required, the process being sometimes continued until the charges sink below the actual cost of transportation.

Rivalry of this kind confers no real advantages upon the public; the losses sustained are often retrieved by higher charges afterwards, and at best the benefits which would result to one class would be at the expense of another. A temporary, and scarcely appreciable, advantage to the public is sometimes purchased with injury to stockholders and acute distress to those who are dependent upon investments in such companies for the means of support. It is ungenerous to desire advantages bought at such sacrifices. It is unjust to rob one class in the community for the benefit of another.

The capital expended upon railways is as much entitled to a fair return as that which is otherwise invested, and the directors of a company are in duty bound to protect the interests of their stockholders, and so to conduct their operations as to realize from the improvement under their charge a just remuneration. At the same time it is freely admitted that, where the expenditures have been injudicious, or the capital inflated beyond proper limits by financial sacrifices, the public should not alone be required to repair the loss; the owners of the property should be content with the smaller proportionate return that they would be entitled to expect on a just valuation of their property. It is conceded in this connection that other obligations rest upon railroad companies besides that of protecting the interests of their stockholders. Their roads are of great value to the public, and public accommodation, by their proper use, should be considered a duty.

These improvements increase manufactures, production, wealth and population; they stimulate industry, and so long as these results can be secured without loss, railroad companies should not, and in general will not, refuse accommodation within the limits of their capacity to any business which advances the general prosperity, even if it promises no direct profit to themselves.

A very large number of Southern railway companies have defaulted upon interest, and these roads are either in the hands of receivers or have been sold out and purchased by bondholders. The capital thus lost cannot be recovered, and it is not proposed to attempt it. The objects of the Association of Southern Railway and Steamship Lines is simply to check the influences and abandon the practices which, if continued, must reduce all to the same condition. It is not proposed, or contemplated, to impose burdens upon the public by adopting high rates, but to revise tariffs and classification, and readjust them upon one equitable basis, graduating the charges in proportion to value, and maintaining the lowest possible rates on such articles as fertilizers, the general use of which tends to increase production.

At the same time it is proper to observe that even such moderate increase of rates upon the great staples of the South as would suffice to restore the net revenues of Southern roads to a paying standard, would impose no hardships upon the people. A single mill per pound on a crop of 4,000,000 bales of cotton would add two millions of dollars to the net resources of the transportation lines, which would be paid by the consumers in Northern States and foreign countries.

It could readily be shown that an increase of rates, which would restore the transportation interests to a condition of comparative prosperity, and alleviate the distress caused by their present embarrassment, would impose a burden upon the public so slight as to be imperceptible.

But an increase of income to the railroads would confer benefits not only upon the holders of stocks and bonds, but upon the public. How many roads are now run with defective rails, rotten ties, bridges, trestles, and culverts in unsafe condition because of the insufficiency of the earnings to enable the companies to make necessary repairs and renewals?

An increase of revenue, therefore, means not only prompt payment of obligations to employees and others, but safer roads and bridges, smoother tracks, better cars, atmospheric brakes, the prompt introduction of all improvements necessary to promote the comfort of passengers, sure connections and increased speed. It involves consequences which affect not only the interests of the capitalist, but the safety and comfort of the public.

The necessities of the railway interest are so urgent, and the benefits to result from maintaining reasonable rates of freight so great, that no class or locality should interpose objections. No discrimination against or in favor of ports or cities will be permitted which can be avoided; but it is proposed that, whatever may be the changes of rates, the same proportions between localities shall be maintained as heretofore, when such proportions have been equitably established, and in no case will rates be increased to a point beyond what is actually necessary to secure a reasonable profit on the capital invested.

No other similar amount of invested capital of any character in the South is half so unproductive. Of the \$591,968,000 which, under the approving smiles of the populace, have been put into railroads, less than \$205,000,000 now pay, or ever can, under the present low rates and heavy burdens, pay either interest or dividends.

This immense sum of about \$367,000,000 invested by innocent parties under the encouragement of the authorities of the different States, has, for the present, been virtually confiscated by legislatures, courts, juries and popular opinion, or wasted by reckless competition demanded by public opinion. And, if popular opinion does not soon change on this subject, this whole vast sum of the hard earnings and capital of our people invested in railroads will be irretrievably sunk and forever lost to its owners.

Under these circumstances, the responsibility is indeed great which rests upon us as railroad managers, charged with the custody and management of this important interest, to whom the large number who have invested their money in this species of property naturally look for protection and income on their investments.

We feel the weight of our responsibility, and we call upon all fair minded and just men to sustain us in our efforts to restore a portion of this large capital to its owners, and to the country, by aiding us to sustain present rates, and to make such reasonable increase of charges for transportation on articles that will bear it without inconvenience to the community as will equal-

ize benefits and burdens between this and other classes of property-holders in our own section of the Union.

General Railroad News.

ELECTIONS AND APPOINTMENTS.

Charlotte, Columbia & Augusta.—At the annual meeting in Columbia, S. C., Nov. 19, the following directors were chosen: S. B. Alexander, K. R. Bridges, A. B. Davidson, S. W. Thompson, of North Carolina; L. D. Childs, J. J. McClure, F. W. McMaster, John B. Palmer, James H. Rion, T. J. Robertson, A. B. Springs, B. D. Townsend, of South Carolina; David Dickson, W. E. Jackson, Joseph O. Matthews, Josiah Sibley, of Georgia; B. F. Newcomer, W. T. Walters, of Baltimore; Mr. C. C. Estes, Mayor of Augusta, Ga., is a director *ex officio*. The board re-elected John B. Palmer, President, and Caleb Bouknight, Secretary.

Connecticut Valley.—At the annual meeting in Hartford, Conn., Nov. 23, the following directors were chosen: J. C. Walkley, George Beach, N. Hollister, F. B. Cooley, E. T. Smith, Joseph S. Woodruff, Hartford, Conn.; L. Boardman, East Haddam, Conn.; Samuel Babcock, Arthur W. Bacon, Middletown, Conn.; S. M. Comstock, Essex, Conn.; Oliver H. Clark, Chester, Conn.; Isaac Arnold, Haddam, Conn.; John W. Marvin, Saybrook, Conn. The Board re-elected J. C. Walkley President; L. Boardman, Vice-President; L. Woodhouse, Secretary and Treasurer; Hiram Fowler, Engineer and Superintendent.

Kentucky & Great Eastern.—At a meeting held in Newport, Ky., Nov. 22, this company was reorganized by the election of the following board of directors: John M. Duke, Samuel Geisler, Thomas L. Jones, Laban T. Moore, W. H. Wadsworth, of Kentucky; John Byrne, Wm. M. Clements, Alfred Gaither, M. E. Ingalls, Stanley Matthews, R. M. Shoemaker, Charles W. West, E. W. Woodward, Cincinnati. The new board subsequently elected Alfred Gaither President, and Thomas Wrightson, Secretary.

Indianapolis, Cincinnati & Lafayette.—Mr. George L. Barringer, General Superintendent, removed his office and residence from Cincinnati, O., to Indianapolis, Ind., Dec. 1.

Hamilton & Lake Erie.—The board of directors of the consolidated company, formed by the union of the Hamilton & Northwestern with this company, is as follows: John Stewart, Ed. Gurney, James Turner, J. M. Williams, John Tuld, W. J. Copp, P. W. Day, W. Hendrie, M. Leggat, the Mayor of the city of Hamilton, Ont., and the Warden of the county of Simcoe, *ex officio*.

Mineral Range.—Mr. J. H. Macdonald having resigned, Mr. Charles E. Holland, General Manager, will act as Superintendent until further notice. The Master Mechanic, Mr. George F. Coon, will direct the movement of trains, and have general charge of the yard at Hancock. The Roadmaster, Mr. John McKay, will have immediate charge of the track and all matters pertaining to the same; he will direct the work upon the different sections and attend to such other duties as may be assigned to him.

Raleigh & Gaston.—Mr. John M. Robinson has been chosen President of this company and the Raleigh & Augusta Air Line, in place of Maj. G. W. Grice, deceased. Mr. Robinson is also President of the Richmond, Fredericksburg & Potomac, the Seaboard & Roanoke, and the Baltimore Steam Packet Companies.

Wilmington & Weldon.—At the fortieth annual meeting in Wilmington, N. C., last week, Hon. R. R. Bridges was re-elected President.

Wilmington, Columbia, & Augusta.—At the annual meeting in Wilmington, N. C., last week, Hon. R. R. Bridges was chosen President, in place of Col. J. B. Palmer, who declined a re-election.

Vermont & Canada.—The new board has elected Dr. James R. Nichols, Boston, President; Wm. Mixer, Hardwick, Mass., Vice-President; A. G. Safford, St. Albans, Vt., Clerk and Treasurer.

Richmond, Fredericksburg & Potomac.—At the annual meeting in Richmond, Va., Nov. 16, Mr. John M. Robinson was re-elected President and Messrs. H. A. Claiborne, P. Haxall, C. S. Mills and E. Channey directors on the part of the stockholders. Mr. Andrew Johnston was announced as Director for the State.

Indianapolis & St. Louis.—Mr. H. B. Hurlburt has been chosen President in place of Thomas D. Messler, resigned. He is Vice-President of the Cleveland, Columbus, Cincinnati & Indianapolis Company.

Rockford, Rock Island & St. Louis.—The following appointments are announced in circulars from Mr. George Skinner, the General Manager: Mr. J. Meredith Davies has been appointed General Passenger and Ticket Agent, vice T. Penfield, resigned. Mr. W. W. Wells has been appointed Master of Transportation, and as such will have control of train-men and cars, together with the telegraph. Employees in these departments will obey his orders. Mr. R. A. Augur has been appointed Road Master, vice J. Breckenridge, resigned, and will enter upon his duties Dec. 1.

Indianapolis & St. Louis Line.—The Indianapolis Journal says that it is reported, apparently upon good authority, that Charles Follett, of the Vandalia line, has been appointed General Ticket Agent of the consolidated lines, and C. C. Cobb, of the Indianapolis & St. Louis road, General Passenger Agent of the same.

Monadnock.—At the annual meeting in Peterborough, N. H., Nov. 23, the following directors were chosen: Jonas Livingston, H. K. French, Peterborough, N. H.; Dr. O. H. Bradley, Peter Upton, Jaffrey, N. H.; J. H. Fairbanks, Windenham, Mass.; Willis Phelps, Springfield, Mass.; H. A. Blood, Fitchburg, Mass. At a subsequent meeting of the directors, Hon. Jonas Livingston was elected President and W. G. Livingston Clerk and Treasurer. The road is leased to the Boston, Barre & Gardiner.

Illinois Midland.—Mr. W. H. Cruger, late of the Toledo, Peoria & Warsaw, has been appointed General Superintendent. Mr. D. M. Kendrick has been appointed General Ticket Agent.

Whitewater Valley.—Mr. Wm. H. Vandegrift, Assistant Superintendent of the Indianapolis, Cincinnati & Lafayette, has been appointed Superintendent of this road, with office at Connersville, Ind.

Wagner Sleeping Car Company.—Mr. A. R. Winfield, Superintendent of the Wagner Company's line on the Michigan Central, has been placed in charge of all the company's cars and lines west of Rochester.

PERSONAL.

—Mr. John H. Sullivan, the retiring Superintendent of the Minnesota & Dakota Division of the Northern Pacific, was presented with a valuable watch and chain and a diamond pin, the whole costing \$650, by the employees of the road at Brainerd, Minn., Nov. 16. The presentation was made by Paymaster Davidson and the occasion was a very pleasant one. Mr. Sullivan will take up his residence at Excello, Macon County, Mo.

—Mr. George E. Kilbourne, having resigned his position as Paymaster of the Keokuk & Des Moines road, the employees of the road presented him at Keokuk, Nov. 16, with a gold watch-

chain, a cane and a set of mantel ornaments. Mr. Kilbourne has been connected with the road for 17 years, and has been Paymaster seven years.

—Mr. George W. Gilbert has resigned his position as Cashier in the Detroit office of the Michigan Central, and the office has been merged in that of Treasurer. Mr. John Newell has resigned his position as Auditor of the road.

—Mr. J. H. Macdonald having resigned his position as Superintendent of the Mineral Range Railroad, General Manager Holland says in a circular: "Mr. Macdonald's connection with this company commenced with the work of grading the road, and to his good judgment, energy and close attention to the interests of the company its present prosperity is largely due. It is with regret that I announce his retirement from the position that he has so long and creditably filled."

—Mr. T. D. Messler, President of the Indianapolis & St. Louis Railroad Company, has resigned his position.

—Mr. J. R. Kendall, General Freight Agent of the Evansville, Terre Haute & Chicago road, has resigned that position to take the Chicago agency of the Blue Line.

TRAFFIC AND EARNINGS.

Flour and Grain Movement.

For the week ending Nov. 20 receipts and shipments are reported as follows (flour in barrels and grain in bushels):

Flour:	1875.	1874.	Increase.	P. c.
Lake ports' receipts....	141,156	135,814	5,342	3.9
" " shipments.....	167,908	135,689	32,219	23.9
Atlantic ports' receipts....	300,945	241,364	59,581	24.6
Wheat:				
Lake ports' receipts....	1,907,880	1,356,404	551,476	40.7
" " shipments.....	2,008,400	1,509,803	498,597	33.0
Atlantic ports' receipts....	1,983,357	1,271,303	712,054	55.4
Grain of all kinds:				
Lake ports' receipts....	3,213,054	2,584,324	628,730	24.3
" " shipments.....	3,428,102	2,536,320	891,782	35.2
Atlantic ports' receipts....	4,057,502	2,736,146	1,321,356	48.3

Of the lake ports' shipments during the week 33% per cent. went by rail this year, against 12 per cent. in 1874, and 13 per cent. in 1873.

The lake ports' receipts for the crop year (beginning Aug. 1) were Nov. 20 nearly 12 per cent. greater than for the same time last year, 10 per cent. less than in 1873, and 2 per cent. less than in 1872—about the average of the three preceding years. Since the 1st of January they have been 5 per cent. less than last year, nearly 10 per cent. less than in 1873, and 2% per cent. less than in 1872.

Railroad Earnings.

The following are from reports made to the Massachusetts Railroad Commission for the year ending Sept. 30, 1875:

	Earnings.	Expenses.	Net earn.	P. c.
Martha's Vineyard.....	\$13,170	\$8,167	\$5,003	38.0
Springfield, Athol & Northampton.....	97,389	69,981	27,408	28.1

Other earnings have been reported as follows:

Year ending June 30:

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Grand Rapids & Indiana.....	\$1,142,014	\$1,129,402	Inc. \$12,612	1.1
Expenses.....	874,682	735,552	Inc. 139,130	18.9
Net earnings.....	\$267,332	\$393,850	Dec. \$126,518	32.1
Earnings per mile.....	3,440	4,344	Dec. 904	20.5
Per cent. of expenses.....	76.59	65.13	Inc. 11.46	17.5

Year ending Sept 30:

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Charlotte, Columbia & Augusta.....	\$614,014	\$614,532	Dec. \$518	0.1
Expenses.....	364,009	368,801	Dec. 4,792	6.4

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$250,005	\$225,731	Inc. \$24,274	10.8
Earnings per mile.....	3,149	3,151	Dec. 2	0.1
Per cent. of expenses.....	62.27	62.27	Dec. 0	0.0
Connecticut Valley.....	271,059	285,376	Dec. 14,317	5.0
Expenses.....	132,749	151,170	Dec. 18,421	12.2

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$138,310	\$134,206	Inc. \$4,104	3.1
Earnings per mile.....	5,898	6,204	Dec. 311	5.0
Per cent. of expenses.....	48.97	52.97	Dec. 4.00	7.5
Richmond, Fredericksburg & Potomac.....	\$382,296	\$449,458	Dec. \$67,162	14.9
Expenses.....	180,049	269,799	Dec. 89,750	33.3

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$902,249	\$179,659	Inc. \$722,590	12.6
Earnings per mile.....	4,445	5,226	Dec. 781	14.9
Per cent. of expenses.....	47.10	60.03	Dec. 12.93	21.6
Wilmington, Columbia & Augusta.....	593,596	661,462	Dec. \$67,866	10.3
Expenses.....	454,438	436,233	Inc. 18,205	4.2

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$139,158	\$225,339	Dec. \$86,081	38.2
Earnings per mile.....	3,141	3,590	Dec. 449	10.3
Per cent. of expenses.....	76.58	65.95	Inc. 10.63	16.1
Wilmington & Weldon.....	661,295	711,410	Dec. 50,115	7.0
Expenses.....	391,766	398,440	Dec. 6,674	1.7

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$269,509	\$312,970	Dec. \$43,461	13.9
Earnings per mile.....	3,654	3,990	Dec. 336	7.0
Per cent. of expenses.....	69.25	58.01	Inc. 11.24	19.4
Washington & Ohio.....	69,673	104,013	Dec. 34,340	7.1
Expenses.....	69,652	74,340	Dec. 4,688	6.3

	1874-5.	1873-4.	Inc. or Dec.	P. c.
Net earnings.....	\$37,021	\$29,673	Dec. \$7,348	8.9
Earnings per mile.....	1,896	2,261	Dec. 365	16.1
Per cent. of expenses.....	72.05	71.47	Inc. 0.58	0.8

Ten months ending Oct. 31:

	1875.	1874.	Inc. or Dec.	P. c.
Union Pacific.....	\$9,919,933	\$8,662,122	Inc. \$1,256,811	14.5
Month of October:				
Canada Southern.....	\$149,563	\$108,330	Inc. \$41,233	44.7
Louisville, Cincinnati & Lexington.....	118,903	.....	.....	.....
Expenses.....	78,017	.....	.....	.....

	1875.	1874.	Inc. or Dec.	P. c.
Net earnings.....	\$40,886	.....	.....	.....
Per cent. of expenses.....	65.61	.....	.....	.....
Michigan Central.....	\$671,874	\$751,595	Dec. \$79,721	10.6
Philadelphia & Erie.....	336,034	350,579	Dec. 14,545	4.1
Expenses.....	215,769	231,294	Dec. 15,525	6.8

	1875.	1874.	Inc. or Dec.	P. c.
Net earnings.....	\$120,205	\$119,285	Inc. \$920	0.8
Per cent. of expenses.....	64.21	65.97	Dec. 1.76	2.7
Union Pacific.....	\$1,141,662	\$1,141,938	Dec. \$276	0.0

	1875.	1874.	Inc. or Dec.	P. c.
Second week in November:				
Denver & Rio Grande.....	\$7,875	\$7,027	Inc. \$848	12.1
Kansas Pacific.....	73,221	75,025	Dec. \$1,804	2.4
Missouri, Kansas & Texas.....	70,169	68,764	Inc. 1,405	9.0
St. Louis, Iron Mt. & Southern.....	110,100	92,093	Inc. 18,007	19.6

	1875.	1874.	Inc. or Dec.	P. c.
Week ending Nov. 5:				
Great Western.....	\$18,735	\$20,257	Dec. \$1,522	7.4
Week ending Nov. 6:				
Grand Trunk.....	\$43,800	\$46,300	Dec. \$2,500	5.4

Freight Rates.

The basis of east-bound shipments (fourth class from Chicago to New York) was advanced Dec. 1 from 40 to 45 cents per hundred. Already grain was charged fourth-class rates, instead of 5 cents below, as had been the case for several months.

The differences are as usual five cents less than the New York fourth-class rate to Baltimore, Philadelphia, Albany and Montreal, and five cents more to Boston and Portland. Flour per barrel is as usual twice the fourth-class rate per hundred.

West-bound rates are unchanged on the basis of 75, 70, 60 and 45 cents per hundred for the four classes to Chicago, and 35 cents for special. The latter rates are likely to be raised, and will easily bear it. The east-bound rates will not be likely to go higher unless an extraordinary demand for grain should be developed; and probably if grain refuses to move at the current rate, a reduction may be made in its favor, without extending to the higher classes.

Ocean Freight Rates.

Ocean freight rates have been in demand at New York. Tuesday there were engagements by sail to Liverpool at 8 1/2 d. per bushel for wheat to Liverpool, 3s. per barrel for flour, and 5-16d. per pound for compressed cotton; by steam grain was taken at 9d. to 9 1/2 d. per bushel, and bacon at 50s. per ton. Refined petroleum was taken by sail to London at 5s. per barrel.

Cotton Movement.

From Sept. 1 to Nov. 26 the receipts and exports have been:

	1875.	1874.	Increase.	P. c.
Receipts, bales.....	1,433,105	1,260,596	172,509	11.9
Exports, bales.....	686,593	578,441	108,152	18.8

Coal Movement.

Coal tonnages for the week ending Nov. 20 are thus reported:

	1875.	1874.	Inc. or Dec.	P. c.
Anthracite.....	553,927	462,483	Inc. 91,444	19.8
Semi-bituminous, Broad Top and Clearfield.....	28,392	.....	.....	.....
Cumberland.....	51,942	.....	.....	.....
Bituminous, Barclay.....	8,282	.....	.....	.....
" " Western Pa.....	34,429	.....	.....	.....
" " West Va.....	4,723	.....	.....	.....

The coal tonnage of the Pennsylvania Railroad for the second week in November was:

	Tons.
Anthracite.....	23,259
Bituminous.....	65,319
Coke.....	15,480
Total.....	104,058

During the year ending Sept. 30, 1875, the Chesapeake & Ohio Railroad delivered at Richmond 76,316 tons coal and coke; at Huntington, 23,405; total, 109,721 tons.

The shipments of Cumberland coal by the various lines for the 10 1/2 months from Jan. 1 to Nov. 13 were as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Baltimore & Ohio R. R.....	1,105,074	1,336,786	Dec. 231,712	17.3
Chesapeake & Ohio Canal.....	808,871	719,737	Inc. 89,134	12.4
Bedford Div., Penna. R. R.....	139,320	69,966	Inc. 69,354	117.4
Total.....	2,053,265	2,126,489	Dec. 73,224	3.2

Shipments were made by 16 different mining companies, the four leading ones being the Consolidation, 383,412 tons; the Maryland, 233,465 tons; the New Central, 233,386 tons, the Borden, 205,820 tons. None of the others shipped over 200,000 tons.

Railroad Traffic.

The shipments of through freight eastward over the Central Pacific during October were: San Francisco, 7,299 tons; interior points, 1,037 tons; total, 8,336 tons, or 834 car-loads, being nearly 27 cars per day. The leading items were: Tea, 2,801 tons; wool, 2,406 tons; barley, 589 tons.

New York Central Car Movement.

The Utica Herald publishes a table of the number of cars of freight and stock passing Little Falls, N. Y., on the Eastern Division of the New York Central & Hudson River road in each month for eleven years past. A summary of the eleven years is as follows:

	Total No. Cars.	Total No. Cars.
1864.....	16,929	17,187
1865.....	105,251	108,827
1866.....	119,272	118,711
1867.....	128,173	128,022
1868.....	132,273	131,095
1869.....	176,175	177,238
1870.....	212,052	212,451
1871.....	242,103	243,391
1872.....	270,800	275,353
1873.....	330,792	332,184
1874.....	344,194	347,884
Totals.....	2,178,080	2,192,943
Total in both directions for eleven years 4,371,023.		

OLD AND NEW ROADS.

New Postal Car Routes.

The following arrangements have been made for the new lines of postal cars which are to run west of Pittsburgh:

The Cincinnati line will leave Pittsburgh 5:50 p. m., Columbus 12:10 a. m., arrive at Cincinnati 4:40 a. m. Going east, leave Cincinnati 7:05 p. m., Columbus 11:45 p. m., arrive at Pittsburgh 6:45 a. m.

The St. Louis line will leave Pittsburgh 8:30 a. m., Columbus 3:50 p. m., Indianapolis 11:25 p. m., arrive at St. Louis 8:10 a. m. Going east, leave St. Louis 7:10 p. m., Indianapolis 4:40 a. m., Columbus 12 noon, arrive at Pittsburgh 7 p. m. This line will carry the way mails between Pittsburgh and Indianapolis.

The cars having been all finished and distributed, the service over these lines began Dec. 1.

The End of the Season of Navigation.

The extreme cold weather of the last days of November caused a sudden and somewhat unexpected close of navigation on the Erie Canal, the thermometer going down to zero or thereabouts and effectually preventing further movement of boats. A considerable number of loaded boats were caught in the canal, and it is probable that many of them will have to remain there for the winter. The same cold snap closed the Upper Hudson and navigation on that river will probably not be resumed, though boats may ply on the lower part of the river for some weeks yet. The Delaware & Hudson Canal is also closed, but all the loaded boats came through. The lakes are not closed as yet, though the end of the season is rapidly approaching, and vessels are fast going into winter quarters.

The Texas & Pacific Convention.

As noted last week the St. Louis Convention met Nov. 23, there being present 764 delegates from 30 States and Territories and the District of Columbia. These delegates represented States directly and also the Chambers of Commerce and other organized bodies of various cities. As was to be expected, the largest delegations were from the Southern and Southwestern States. After an opening address by Col. Brodhead, of St. Louis, Gen. Anderson, of Richmond, Va., was chosen temporary Chairman, and committees on credentials and organization appointed. An address was made by Mayor Britton, of St. Louis, and a recess taken.

After the recess, the committees reported, and the following permanent officers were chosen: President, Judge Stanley

Matthews, of Cincinnati; Vice-President, Gen. Wm. Preston, of Kentucky; Secretary, Col. John M. Harrell, of Arkansas; Official Reporter, L. L. Walbridge; Sergeant-at-Arms, J. E. D. Cousins. Judge Matthews and General Preston made addresses. A number of memorials and resolutions, including those of the Memphis Convention, were presented and referred to an appropriate committee, and the convention adjourned to the next day.

On reassembling the next morning a long letter from Col. Thomas A. Scott, defining the position and the needs of the company, was read. A number of documents were ordered printed. The committee on resolutions presented a set of resolutions which were adopted. These set forth that a transcontinental road from the Mississippi to the Pacific, on the 32d parallel, is demanded:

1. As a measure of sound statesmanship.
2. As a means of national defence.
3. As a local military necessity.
4. As a measure of practical economy.
5. As a commercial necessity to the 12,000,000 people of the Southern States.
6. As a direct saving to the people of the entire country by furnishing a competing line.
7. Because of the communication to be established with Mexico.
8. Because it is the duty of Government to protect the citizens who have settled in the territories the road will develop.
9. As a prudential measure to encourage the people of the South and to do justice to them.

For these reasons the Convention resolved:

1. That the Southern line to the Pacific should be built near the 32d parallel from Shreveport by El Paso to San Diego.
2. That there should be branches or extensions from the best points on the line to New Orleans, Memphis and Vicksburg and a connection with the Atlantic & Pacific at Vinita.
3. That such regulations should be adopted as to make the new road a competing line and an open highway for all connecting roads.

4. That it should be built at the lowest possible cash cost, and that Congress should reserve the right of regulation of charges, etc.

5. That the construction should proceed continuously till the main line is finished.

6. That Government should guarantee the interest for 50 years (not to exceed \$2,000 per mile) on the 5 per cent. construction bonds, under proper regulations.

7. That the President, with a committee to be appointed by him, should prepare an address to the people of the United States, setting forth the views of the Convention, and send copies of the same to the President of the United States and both houses of Congress.

8. That copies of the resolutions be sent to all bodies represented in the Convention.

9. That the utmost possible publicity be given the proceedings by publication.

Further addresses were then made by Col. Ezra N. Hill, of Arkansas; Mr. Robertson Topp, of Memphis; Mr. R. W. Thompson, of Indiana; the President and Vice-President. After passing the usual resolutions of thanks, the Convention adjourned. The members were entertained by the St. Louis people with a banquet and several excursions.

After the adjournment the President appointed the following committee of 13, as provided for in the resolutions, to aid him in preparing the address: Hon. Jas. O. Brodhead, Missouri, Chairman; Hon. R. W. Thompson, Indiana; Hon. John H. Kennard, Louisiana; Morton McMichael, Pennsylvania; Peter Cooper, New York; Gen. Jos. B. Anderson, Virginia; Col. Wm. Johnson, North Carolina; D. Felsenfeld, California; A. G. Claf-ton, Texas; H. G. Smith, Tennessee; Gen. Jos. E. Johnston, Georgia; C. K. Marshall, Mississippi.

Pennsylvania.

The company has made a proposition to the Philadelphia City Council with respect to the recently burned Market street bridge over the Schuylkill. The offer is that if the city will pay \$65,000 the company will build at Market street a substantial wooden bridge with sufficient accommodation both for the railroad and street traffic, said bridge to be finished by Jan. 1, and to be good enough to last five years, giving ample time for all arrangements to be made for a permanent stone or iron bridge. The company will also, in order to improve the access to its depot in West Philadelphia, change the location of the street railroad tracks over the Chestnut street bridge, according to a plan submitted. Accompanying the offer are plans and specifications for the proposed new wooden bridge and some alterations of the old piers which will be required. The offer was referred to a committee.

The top of the tunnel near Elizabethtown, Pa., was removed Nov. 29, that is the work was begun on that day and was to be completed on the following one, trains meantime running over the loop line by Columbia. It was resolved some time ago to change this tunnel to an open cut, and the work of cutting down the hill has been in progress some months. The men finally reached the brick arching a few days since, and that is now finally removed.

San Francisco, San Mateo & Santa Cruz.

The location of this road is now completed from Half-Moon Bay, Cal., to the Santa Cruz County line, a distance of 34 miles. The right of way is secured for most of the distance. A tunnel 2,000 feet long will be required through Moore's Hill, near Pescadero, the hill being mainly composed of a soft sandstone. With this exception the work will not be very heavy.

Eastern.



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S. WRIGHT DUNNING AND M. N. FORNEY.

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Editorial Announcements.

Addresses.—Business letters should be addressed and drafts made payable to THE RAILROAD GAZETTE. Communications for the attention of the Editors should be addressed EDITOR RAILROAD GAZETTE.

Passes.—All persons connected with this paper are forbidden to ask for passes under any circumstances, and we will be thankful to have any act of the kind reported to this office.

Advertisements.—We wish it distinctly understood that we will entertain no proposition to publish anything in this journal for pay, EXCEPT IN THE ADVERTISING COLUMNS. We give in our editorial columns OUR OWN opinions, and those only, and in our news columns present only such matter as we consider interesting and important to our readers. Those who wish to recommend their inventions, machinery, supplies, financial schemes, etc., to our readers can do so fully in our advertising columns, but it is useless to ask us to recommend them editorially, either for money or in consideration of advertising patronage.

Contributions.—Subscribers and others will materially assist us in making our news accurate and complete if they will send us early information of events which take place under their observation, such as changes in railroad officers, organizations and changes of companies, the letting, progress and completion of contracts for new works or important improvements of old ones, experiments in the construction of roads and machinery and in their management, particulars as to the business of railroads, and suggestions as to its improvement. Discussions of subjects pertaining to ALL DEPARTMENTS of railroad business by men practically acquainted with them are especially desired. Officers will oblige us by forwarding early copies of notices of meetings, elections, appointments, and especially annual reports, some notice of all of which will be published.

THE UNION PACIFIC IN THE SUPREME COURT.

The decision of the United States Supreme Court, in the suit of the Union Pacific Railroad Company to recover from the Government one-half of the amounts accruing for Government transportation, is a very important one for the company. Its importance is by no means measured by the recovery of the three or four hundred thousand dollars a year which the Government had proposed to retain. The great point decided is that the company's debt to the Government—an undisputed debt—for the \$1,634,190 yearly paid by the latter on the bonds advanced to the company will not be due till the bonds themselves mature—that is, 30 years from the date of their issue. That is, the company receives a loan of the above amount yearly, for which it does not have to pay interest, and but for the 5 per cent. on net earnings and the half of the amount accruing for Government transportation, this would be equivalent to interest on about \$49,000,000 for fifteen years.

Without any payments on account of Government business or the 5 per cent. of net earnings, the Government's advances for interest at the maturity of the bonds would amount to \$49,025,721, making with the principal the debt of the company then payable no less than \$76,262,233. This is an enormous sum, truly, yet the present value of that debt is comparatively a small amount. At the time of issue this value was about one-quarter of the whole amount—that is, a quarter of the amount then invested as a sinking fund at 6 per cent. would have retired the debt at maturity.

The total charge for Government transportation on the Union Pacific Railroad in 1873 was about \$752,000. The amount does not tend to increase, apparently, having been on the average \$766,000 a year for the four years ending with 1873. If we subtract half of this sum from the yearly interest paid by the Government, we have a remainder of \$1,251,190 as the annual debt due the latter for interest advances, which in thirty years would amount to \$37,535,700, and could be retired by an investment of about \$13,000,000 at the present time.

This is one of two cases before the Supreme Court in which this company's relations with the Government are involved. In this the company was the plaintiff; in the other the Government brings suit against the company for the payment of 5 per cent. of the yearly net earnings, which were to be devoted to the payment of the Government advances. The contest is on the interpretation of

the term net earnings. The company claims that the act of Congress uses it in the sense of the surplus remaining after the payment of interest on the funded debt, as well as working expenses, and not in the sense used in railroad companies' reports. The difference is an important one, for the yearly interest, including that paid by the Government, amounts to nearly \$5,000,000, and by the company's interpretation a quarter of a million a year less to pay than by the other. According to its view the amount payable to the Government under this head, on the earnings of 1874, is about \$55,000, or \$136,000 if it does not include the interest on the Government bonds which it does not pay; while if we include the entire excess of receipts over working expenses in net earnings, the amount due would be nearly \$300,000. In any case, whatever the profits of the company may be, the difference by the two methods will be just 5 per cent. on the amount of yearly interest on the funded debt, said interest being about \$3,233,000 without and \$4,867,000 with the interest on the Government bonds, so that a favorable decision on this point will save the company a further sum of about \$160,000 or \$243,000 a year.

In the case of Government transportation, however, the company receives something immediately, for the Government has for some time withheld all payments, and now is said to owe on this account about \$1,200,000. But the company has never paid anything, we believe, on account of the 5 per cent. of net earnings, never having had any considerable amount above the interest on its bonds until this year. Should the Government succeed in this suit, it would have a claim for 5 per cent. of net earnings since the completion of the road. Here again there is a conflict between the company and the Government. The former claims that this date is the one at which the Government Commission recommended the acceptance of the road as completed in the manner required by law, which date is October 1, 1874; the latter claims that the date is that of the opening of the road for through traffic, which was in the summer of 1869. Since the latter date, there has been an excess of earnings over working expenses amounting to about \$28,000,000, on which by the Government interpretation \$1,400,000 is now due.

Should the Government gain its case, so long as the Government traffic remains as it has been recently, and the net earnings are equal to those of the current year, the Union Pacific will have to pay yearly about \$750,000 towards repaying the Government's advances, which is about \$900,000 less than the interest which the Government pays yearly. The company has proposed to pay in lieu of the 5 per cent. claim \$500,000 a year for ten years, then \$750,000 a year for ten years, and \$1,000,000 a year thereafter. But these amounts are to be held as a sinking fund for the purpose of retiring the interest and principal due the Government at the maturity of the bonds. That is, while the company pays no interest on the Government's advance of \$1,634,000 yearly, the Government is asked to pay compound interest on the yearly payments which the company offers to make. We suppose that the latter will receive no interest on payments made in accordance with the law requiring 5 per cent. on net earnings, but that this sum will be credited on the current interest, leaving about \$900,000 a year (with the present earnings) accumulating hereafter, which from this time to the maturity of the bonds would make a debt of \$22,500,000, and this with the principal would amount to about \$50,000,000, besides some \$7,000,000 heretofore paid.

Unless this accruing debt is provided for in advance by some kind of sinking fund, near the close of this century the Union Pacific Railroad will probably fall into the hands of the United States. If the company's interpretation of the law is accepted by the courts, while the present yearly compulsory payments will be less, the debt at maturity will be considerably more, and the stock at that time will probably cease to have any value.

That fact, however, has less effect on the present value of the stock than might be supposed. It in no way prevents the payments of as large dividends as can be earned every year until the Government bonds are due, and quite probably the road may earn enough to pay what would be equivalent to large interest plus a yearly payment sufficient to make a sinking fund that would pay for the stock at par by the time the bonds are due. If this shall turn out to be so, the bonds are now worth par. But in this case, it must be remembered, the value of the stock decreases yearly. It becomes equivalent to a title to an annuity payable for twenty-five years. Next year it will be payable for but twenty-four years, etc., and of course will be worth less.

The situation of the Union Pacific in this respect, we believe, is just like that of the other Pacific railroads to which the Government has loaned its credit. The only payments on account of interest that can be demanded before the maturity of the bonds are one-half of the dues from Government transportation over the respective roads, and 5 per cent. of their net earnings. The interpretation of the term net earnings remains to be decided, but however decided, the payments on this account will not be embarrassing to any of the companies except those which

can barely pay interest on their prior loans, and unless the net earnings should more than double they will not be sufficient to balance the Government's yearly interest payments. Thus near the close of this century there will come due \$64,600,000 of principal, and probably nearly twice as much interest (the amount now accumulated on the latter account is about \$20,000,000), from the six Pacific railroad companies, unless they previously voluntarily make some arrangement for the gradual retirement of these debts, which it will not be advantageous for them to do unless their roads are extremely profitable to them—that is, unless their profits in 1899 make them worth more than the large accumulated Government debt plus the debts which precede them.

The New Route to Canada.

An excursion train passed over the just completed New York & Canada Railroad two weeks ago, and regular through passenger and freight trains began to run Nov. 29 from White Hall to the Canada line, whence they pass to Montreal on the Province Line Branch of the Grand Trunk. The whole length of the new line from White Hall at the southern extremity of Lake Champlain to Province Line is 114 miles, and it follows pretty close to the western shore of Lake Champlain for the whole distance. It is now about three years and a half since the contract was let, and, with the exception of a little delay caused by failure of contractors, the work has been steadily in progress. Though the present company is but four years old, the idea of the road is an old one, and in fact its construction was actually begun several years before by two companies, the White Hall & Plattsburg, which began its work from the end of a branch of the Rutland road near Ticonderoga and completed it to Port Henry, 17 miles northward, and which had intended to join with the Montreal & Plattsburg, which had built, as long ago as 1852, from Province Line southward 23 miles to Plattsburg, and then turned west of south from the lake and built 20 miles further to the Ausable River. There both companies stopped, and for a time the project seemed dead. In 1871, however, the New York & Canada Company was formed, and, with the powerful aid and backing of the Delaware & Hudson Canal Company, whose leased Rensselaer & Saratoga line already reached to and around the foot of the Lake Champlain, it soon began its work. Among the first steps of the new corporation was to secure by purchase and consolidation the existing lines of the White Hall & Plattsburg and the Montreal & Plattsburg companies, with the view of making them part of its own road. Upon the final location, however, it was resolved to adhere more closely to the line of the lake than was originally proposed, and the junction with the more northern of the two roads was made at Plattsburg, the 20 miles of that road from Plattsburg to the Ausable River being retained only to be worked as a branch. The contract was let March 18, 1872, and work was begun forthwith, and, as stated before, was only interrupted by the failure of the original contractors. The first section completed was the comparatively easy section of 23 miles from White Hall northward to Ticonderoga, the only difficult work on which is the tunnel at Ticonderoga. This, with the 17 miles of old road from that point northward, made a section of 40 miles, from White Hall to Port Henry, which has been open to traffic for more than a year, while work has been progressing on the 57 miles from Port Henry to Plattsburg. From the former place the road skirts the lake to Westport, then leaves it to avoid the passage of Split-Rock Mountain, and running back from the lake some 10 miles, strikes it again at Willsboro Bay. Past Willsboro Bay and for 14 miles northward is some of the most difficult and expensive railroad work in the United States. Following the line of the lake the road is for the most part cut out of the solid rock, now in a side-cutting and again in a tunnel, and in several places crossing deep ravines by heavy fills or costly iron bridges. In one place, to avoid a deep cutting on the face of a projecting cliff, an attempt was made to fill out into the lake; but when the bank had attained a respectable height the whole suddenly slid out into the deep water of the lake and disappeared. All attempts to anchor the fill failed, and as a final resort the rock-cutting had to be made after all. The cost of this 14 miles was enormous and must have made a large fraction of the entire cost of the road. North of this section the road skirts around the foot of the Trembleau Mountain to Port Kent, near which place some trouble was experienced in filling through the marshes. Thence it runs northward by a comparatively easy line along the level shore of the lake to Plattsburg, whence the old road continues it to the Canada line. From West Chazy, north of Plattsburg, a line has been surveyed to Rouse's Point, which, if built, will give the road two termini, with connections at both with branches of the Grand Trunk leading to Montreal.

The cost of the whole road with the Lake George Branch of four miles is said to have been \$7,000,000, which, if it includes the purchase of the old road, would make about \$60,000 per mile. Of this amount \$234,000 only was con-

tributed by the towns along the line; \$4,000,000 was raised by the sale of first-mortgage bonds in England, where, with the indorsement of the Delaware & Hudson Canal Company, they found a ready market, and the balance was contributed by the same company, which holds a large and controlling interest in the New York & Canada stock. The road will be worked by that company as an extension of the leased Rensselaer & Saratoga line.

In connection with that line and the Hudson River Railroad the New York & Canada forms a route from New York to Montreal much more direct than that through Vermont and up the eastern side of Lake Champlain. Indeed it is not very far from an air line, the only deviation of consequence being the detour by Saratoga, and even that will be done away with by the new cut-off or loop line following the Hudson from Mechanicsville to Fort Edward, which will probably be built next year. There will then be, as indeed there is now, no line approaching it in directness, and none surpassing it in excellence of road and equipment. The road will probably be able to secure a very large share of the traffic between New York and Montreal, which is a considerable passenger, but not a heavy freight traffic, and it will also have a share of the heavy summer passenger travel to Lake Champlain and Lake George, though much of this, as well as of the local business of the lake towns, will doubtless continue to go by steamboat in the season. The Delaware & Hudson Company probably expects to open up a new outlet for its coal business in the supply of fuel to the cities of Montreal and Quebec and the towns of the lower province, and moreover to develop a considerable traffic with the iron region lying to the west of the Lake Champlain and the mines and furnaces of Northern New York. Already there has been some development of the Champlain iron region, and of the mines lying back of Crown Point, which are among the best in the world, and it is probable that a profitable traffic may be built up in the carriage of coal and supplies to, and ore and iron from, this district, though there is a cheap water route open to most of it. All of the company's leases and extensions have been made, more or less directly, with the object of increasing its coal trade, and it is not likely that this is an exception.

Foreign Railroad Notes.

A large number of Austrian railroads recently introduced a system of premiums not only for economy, but for discovering defects that might have caused accidents. They are given for saving in lubricating materials, for savings in fuel and lights (both according to the value and quantity of the materials saved), for the discovery of loose wheels, of defective couplings, of defective safety-chain hooks, and of loose tires (nearly all car wheels have tires in Europe). Although this system has been in operation but a short time, its results are reported to be already most satisfactory. Those companies which have been liberal in awarding the premiums have been excellently rewarded. The official accident statistics for 1874 will contain a list of those who have discovered defects in the track and the cars, and of the accidents thereby avoided. The premiums for economy on the eight principal roads are said to have produced an average saving of 29.6 per cent. in the quantities of material used!

The Austrian Government, at the suggestion of the Chief Sanitary Counsel, has recommended the general introduction of the Esmarch apparatus for the arrest of bleeding as a part of the provisions of every passenger train. On account of the unhealthfulness of many of the gravel pits and other excavations from which materials are taken for road-beds, the Government requires that care shall be taken to have all such places thoroughly drained, and, where possible, properly cultivated.

The German Empire has a Commission engaged in the preparation of a revised general railroad tariff for the railroads of the Empire. The Commission in beginning its labors resolved that under all circumstances the system must be uniform for all Germany, which will make it necessary either to abolish the system of classification of freights, such as exist on most German railroads and in all other countries, or what is called the "car-space system," which has been in force on the railroads of Alsace and Lorraine, by which the shipper is taxed for so much space in a car, and may put anything whatsoever in that space.

It was further resolved that the shipper shall declare when shipping whether his goods shall go in an open car (the prevailing type of freight car in Europe), or in a covered car, and that the basis of the tariff shall be the rate in open cars, to which there shall be a certain percentage added for shipments in covered cars. It was further accepted as a principle that general maximum tariffs should be fixed, but that the railroads should be given a completely free movement both in increasing and decreasing their rates, within the maximum fixed. In order at once to secure stability to these tariffs and to guarantee the practical execution of these principles, the inspection of all the tariffs by a central officer with assistance from railroad experts, and the absolute publicity of the tariffs, is declared to be necessary.

The Belgian *Moniteur des Interets Matériels* complains that by law in Belgium the liability of railroads for loss or damage of freight is limited to three-quarters of a franc per kilogram—about 0.44 cent per pound—unless a higher value is declared in shipping and a materially higher price paid for carrying. It points out that this limitation of liability by law exists only in those countries where some of the roads are worked by the

Government, and that it exists in all such countries. In most of them, however, the limit is a franc and a half per kilogram. It gives an example of the shipment made from a French station adjoining the Belgium frontier to a Belgian station of a cask of wine. A quantity weighing 20 kilograms, worth 50 francs, being lacking on arrival, the carrier has to pay 50 francs damages; but if the shipment is sent a few miles further to a Prussian station, the damages paid are but 30 francs, while if it was made from a station in Belgium, but a few miles from the French station, to another Belgian station, but 15 francs damages could be collected. Further, while 30 francs would be collectable on a shipment from the French to the Prussian station, if it were made in the opposite direction, from the Prussian to the French station, the whole value, or 50 francs, could be recovered.

Steam Street Car

A trial was made last Saturday, in West Philadelphia, of a steam street car, built at the Baldwin Locomotive Works. The engines consist of two 6x10 in. cylinders, which are attached to an inverted cast-iron bed-plate, bolted to the bottom of the car. The cylinders are placed near the center of the car, and in front of the rear axle, and are connected to cranks on the front axle. The latter has both inside and outside bearings. The inside bearings, or rather the jaws for these bearings, are cast on the bed-plate referred to. The valve gearing is of the usual shifting link pattern. The exhaust steam is carried through a system of pipes before it escapes, so that it is partly condensed, and although not entirely noiseless, it does not produce the distinct puffing sound always heard when steam escapes directly from the cylinders.

The boiler is of the vertical type, 6 ft. high and 36 in. in diameter, and is made of steel $\frac{1}{2}$ in. thick. The tubes are $1\frac{1}{2}$ in. in diameter and 48 in. long, and the fire-box is 22 in. high. The boiler is placed on the front platform and let into the front of the car, so that only one-half of it projects outside. It is very neatly cased up so as not to be at all visible from the inside. It is covered with felt 1 in. thick, then with pine boards $\frac{1}{2}$ in. thick, and outside of that with walnut, also $\frac{1}{2}$ in. thick.

The car is of the usual pattern, with a body 16 ft. long and with four 30 in. wheels, only one pair of which is driven by the engines.

The experiments with the car and engine have been very satisfactory, although on Saturday afternoon there was some difficulty in getting steam, owing to poor coal and a poor fire.

A Journey Westward.

III.

ALTOONA.

The arrangement of the Pennsylvania Railroad shops at Altoona is very clearly represented in the two maps published herewith, the one representing the locomotive shops, the other those employed in the repair and construction of cars. The first of these can hardly be said to be arranged on any carefully matured plan, but are the result of gradual growth, to meet the increasing demands of the road. The car shops, on the contrary, are comparatively new, and were carefully planned and occupy what was, before they were built, unoccupied ground. Although the arrangement of the locomotive shops is not entirely the result of a premeditated and carefully matured design, nevertheless it will be seen that the various shops are very conveniently located. The transfer pit, in which a transfer table is operated by steam, is located between the old erecting shop on the one side and the boiler, wheel and blacksmith shops on the other. Boilers can therefore be run from the boiler shop on to the transfer table, and then to any of the tracks in the old erecting shop. In this shop the preliminary work is done on the engines, after which they are run into the erecting shop, where they are completed. The transfer table and the location of the shops give excellent facilities for doing this, and at the same time afford the means of carrying the wheels from the wheel shop to the erecting shop, and the rough work from the blacksmith shop to the machine shop. The main foundry and the wheel foundry, it will also be seen, are very conveniently located. The former is very large, 250x100 feet, is very well-lighted, and with every facility for doing good work. Some moulding machines, built by Messrs. William Sellers & Co., for moulding car-brake blocks and shoes were especially interesting. A description would, however, be unintelligible without engravings. The two smaller round engine houses are occupied by the engines running on the Middle Division, or between Altoona and Harrisburg, and the largest one by the engines of the Western Division, or from Altoona to Pittsburgh.

WHEEL FOUNDRY.

This is a comparatively new building, and is provided with the most approved appliances for manufacturing wheels. The size of it is 138 ft. 10 in. x 71 ft. 5 in. It has two Mackenzie No. 8 cupolas, thirteen hydraulic moulding cranes, one pitting crane, and one hydraulic lift for charging cupolas. The reservoir into which the iron is first run from the cranes is hung on trunnions and is turned by hydraulic power. The wheels are annealed in pits, and allowed to cool without the addition of any other heat excepting that which they have when taken out of the sand. The capacity of the foundry is 200 wheels per day; at present 180 are made. The force employed for doing this consists of twelve wheel-moulders, one core-maker, one moulder on soft work, fifty-five laborers, one cupola man, a foreman, assistant foreman and two clerks.

RECORDS AND TESTS OF WHEELS.

Very careful tests are made of all the wheels cast. It should be stated that about 8 per cent. of Bessemer steel is added to the metal of which the wheels are made, and that all the wheels manufactured by the Pennsylvania Railroad Company are made under the Hamilton "steered-wheel" patent. A chill test piece is cast from each tap of the cupola. Each tap will make almost nine wheels. Besides the chill-test pieces, two

other test pieces are cast from each cupola to determine the transverse strength of the metal. The latter are made two inches square and fifteen inches long, so as to enable them to be supported in the testing machine on supports twelve inches apart. These pieces are sent to the testing room, of which more will be said hereafter, where they are broken, and a careful record is made of the strain at which they break. The accompanying tabular statement is a copy of one of the daily records which are made. A circular notice is also reprinted, which gives instructions regarding the method of reporting defective wheels and axles, which instructions, it is believed, could be adopted with very great advantage on other roads. The information thus collected is quite certain to be worth much more than the cost of keeping it.

ALTOONA WHEEL FOUNDRY.

Statement of Metals, Fuel, Material used and product, Aug. 28, 1875.

Metals Charged in Cupola.

No. Charges.	1 and 2.	3 and 4.	5 and 6.	Total.	Per cent.
Steel.....	1,600	1,600	960	4,160	8
Greenwood.....	2,400	1,600	1,600	5,600	10
Clove Spring.....	2,400	1,920	1,920	6,240	12
Hecla.....	3,000	2,400	2,400	7,800	15
Glendon.....	3,000	2,400	2,400	7,800	15
Ramapo Wheels.....	3,000	2,400	2,400	7,800	15
Scrap.....	5,000	3,680	4,320	13,000	25
In one cupola.....	20,000	16,000	16,000	52,000	.....
Total weight charges.....	40,000	32,000	32,000	104,000	.....

Account of Coal.		Chill Tests.		
How Charged.	Weight.	Test No.	Quality.	Depth of Chill.
Bed coal.....	3,500	1	Good.	1"
Charge 1 and 2 coal.....	2,000	2	"	"
" 3 and 4 ".....	2,000	3	"	"
" 5 ".....	1,000	4	"	"
".....	.....	5	"	"
".....	.....	6	"	"
In one cupola.....	8,500	7	"	"
Total weight coal.....	17,000	8	"	"
Total weight iron.....	104,000	9	"	"
Ratio of coal to iron.....	1.6:1	10	"	"

REMARKS.

Weather—Clear.
Strength test, 656 and 657 were taken from wheel mixtures, 1" chill.

Wheels Poured.

	33	30	28	26	
Cast.....	132	39	11	.....	182
Bad.....	9	2	2	.....	13
Good.....	123	37	9	.....	169
	67,854	17,858	4,087	.....	89,799

Defective Wheels.

Defect.	Casting.	Inspection.
Rough tread.....	1
Chill crack.....	5
" tread.....	5
" flange.....	1
Slag.....	13
Total lost.....
Total poured.....	182	.....

[Under this head of "Defective Wheels" there are also lines with the following titles, in which there are no entries in this particular report: Core Broken, Too Light, Run Out, Thin Flange, Blistered, Hollow Hub, Soft, Hard, Cold Shot, Kicked, Broken Chill, Crooked, Over Annealed, Not Annealed.]

Account of Scrap.

Total Iron Charged.....	104,000
Total Weight Good Wheels.....	89,799
Weight of Scrap.....	14,101
Ten per cent. off, Scrap on hand.....	5,200
	8,901

CIRCULAR NOTICE.

In order to insure a uniformity in reporting defective wheels and axles drawn from locomotive and passenger equipment cars, they must in every instance be designated as follows:

WHEELS.

1. *Shelled Out on Tread.*—To be used in reporting wheels which may become rough from circular pieces of the chill wearing off, leaving a round, flat spot, deepest around the edge, with raised center.
2. *Comby.*—To be used where flat spots, composed of a collection of small holes in the tread, occur. Care should be taken to distinguish between the two defects as noted in Nos. 1 and 2, and if both occur in the same wheel, both terms should be used.
3. *Seams in Tread.*—Under this head should be included wheels having seams running lengthwise of the tread, which cause pieces to break out, thereby making the tread rough.
4. *Worn Hollow at Flange or on Tread.*—This term should be applied to all wheels worn down enough to weaken them or cause them to track badly. Care should be taken to distinguish between the two wears, whether at flange or on tread.
5. *Flat from Sliding.*—To be used in cases where flat spots are made by sliding wheels on the rail.
6. *Worn Flat.*—All wheels with treads worn away in spots should be included under this head. Care should be taken to discriminate between flat from wear and flat from sliding as noted above.
7. *Worn Flange.*—Report under this head all wheels with flanges worn so thin as to impair their strength, or cause them to mount rail.
8. *Bursted.*—Includes all wheels cracked from the axle outward. Length of crack should be specified.
9. *Cracked.*—Includes all wheels cracked either in single plate, the inside or outside portion of double plate, or between single or double plates, as the case may be, specifying length of fracture and location.
10. *Cracked Brackets.*—The number of brackets cracked should invariably be given.
11. *Cracked Tread.*—Specifying length of crack and direction. Care should be taken not to confound this with chill cracks in tread, which are harmless.
12. *Broken Flange or Rim.*—Either should be used as case may be, using the term "broken" only in cases when a piece of the wheel is broken out.
13. *Good for Freight.*—Under this head should be reported all wheels that are drawn from passenger service, on account of some defect, but are still considered good for freight. The

wheels drawn from passenger equipment cars are to be placed, the 33-inch wheels under box cars, and the 30-inch wheels under coal dumps, the bolsters of which cars to be painted red, so as to distinguish them from cars having freight equipment wheels under them. The wheels taken from passenger locomotives to be placed under freight locomotives. The trace of these wheels must be followed same as with those under passenger, until drawn from service altogether. Where passenger equipment wheels or axles, or both, are placed under freight equipment cars or locomotives, the transfer must appear on weekly reports, the same mention to be also made on reports when drawn from freight service.

Should a wheel be drawn because of being worn hollow, or from other cause, and it is found other defects appear, both causes should be given, using the term of the defect most apparent as the leading one, and the minor defect as an auxiliary cause, thus—"worn hollow at flange" and "comby."

If one wheel is drawn because of defect and its mate is "good," both wheels should be reported, and when drawn from axle, both sent to the foundry, where the "good" wheel will be remeasured and mated to another wheel drawn of same size, after which they will be placed in service again, there being no

placed under freight box cars; the bolsters of which must be painted red [same as provided for in the case of wheels drawn] when such axles are placed under them.

Axles drawn from passenger locomotives, if still good for service, must be placed under freight locomotives.

The proper headings to use in reporting axles drawn are as follows:

1. *Journal Worn*.—Under this head should be reported all axles that may be worn so badly as to render them unfit for further service. Be careful to state: 1st, Whether worn hollow, and in what part of journal. 2d, Whether worn smaller than 3 inches, which is the limit of wear.

2. *Journal Cut*.—Report the exact nature of the cut, with the probable cause.

3. *Collar of Journal Worn Thin*.—All axles worn so thin as to render them doubtful for further service should be withdrawn, and reported under this head.

4. *Collar of Journal Worn off*.—All axles with collars worn off should be reported under this head.

5. *Broken*.—All broken axles should be reported under this head, being careful to give exact nature and locality of break-

under a passenger equipment car or locomotive. The efficiency of the record is altogether dependent upon the accuracy and uniformity of reports received from the foremen and master mechanics, and it is therefore enjoined upon all to strictly comply with all the requirements contained in this circular.

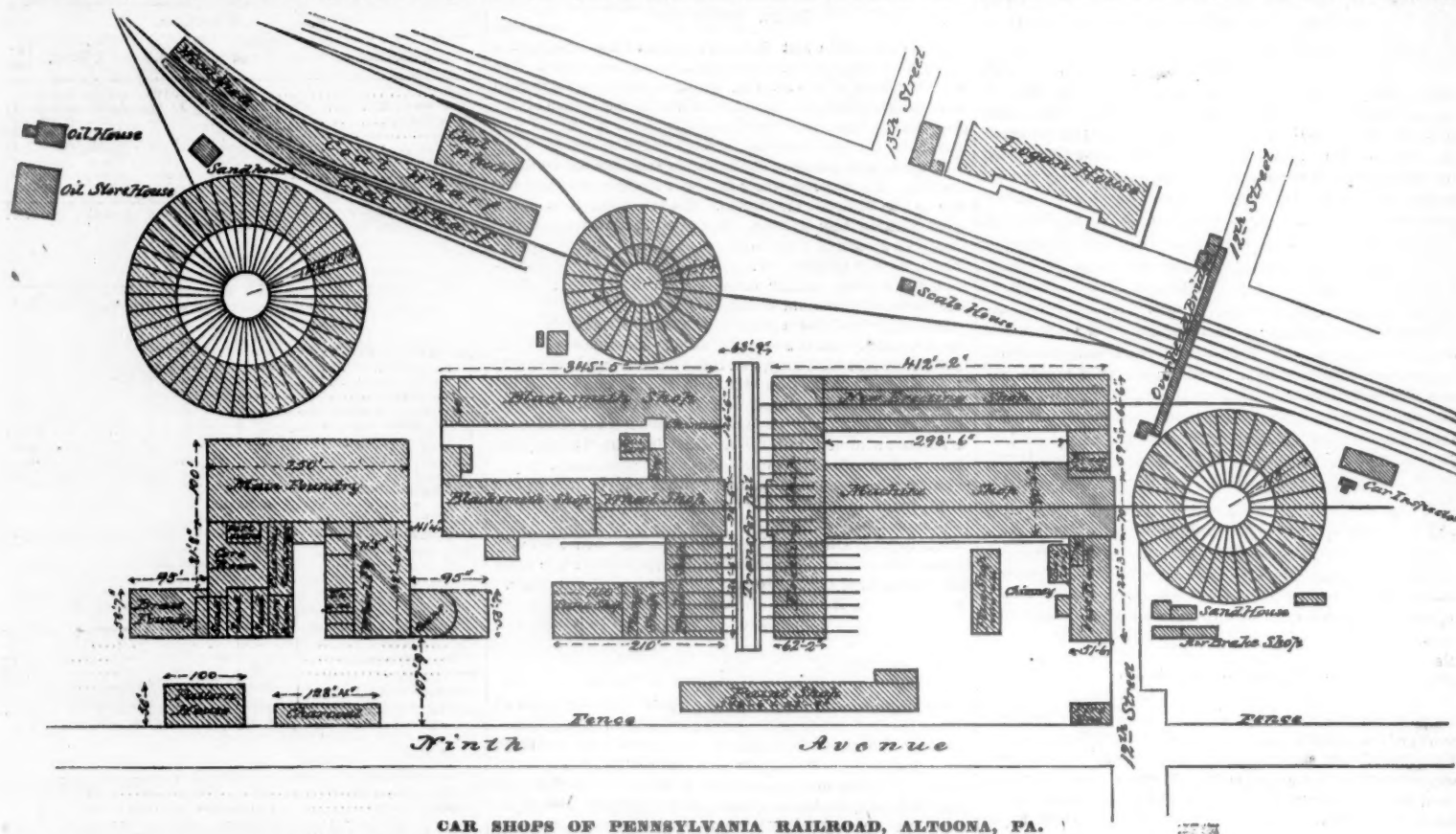
THEO. N. ELY,

Superintendent of Motive Power.

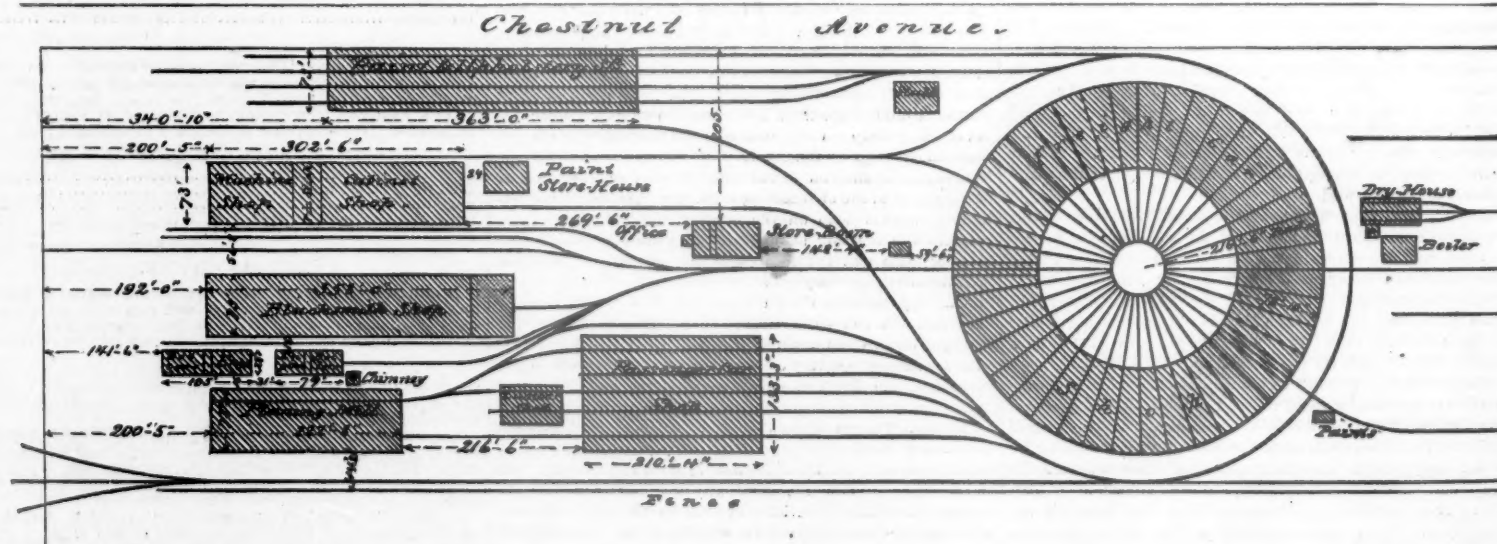
OFFICE OF THE SUPERINTENDENT OF MOTIVE POWER,
Altoona, Pa., Oct. 18, 1875.

TESTING DEPARTMENT.

The Pennsylvania is, we believe, the first railroad company in this country which has established a testing department under the charge of experts, whose duty it is to determine the quality of the materials used, such as the strength of metals and character of oils, the performance of engines, the degree of purity of water, the results of various processes, such as the manufacture of wheels, journal-bearings, etc. The Baltimore & Ohio Railroad Company has for several years employed



CAR SHOPS OF PENNSYLVANIA RAILROAD, ALTOONA, PA.



LOCOMOTIVE SHOPS OF PENNSYLVANIA RAILROAD, ALTOONA, PA.

limit fixed for the life of passenger wheels, but on the contrary they should be run until worn out or until some defect debaring their use in passenger service is discovered.

A wheel may occasionally present defects other than those given above, but it is a rare occurrence, and in such cases the inspector may designate as he sees fit, being careful to give as nearly as possible the exact condition and cause. Wheels are frequently drawn (sometimes unnecessarily) on account of flat spots; experience has proved that a spot less than two inches in length does not warrant the removal of the wheel, but on the contrary, if left running, may gradually disappear.

The passenger wheels made at Altoona Foundry are distinguished from the freight by the letter P, which is stamped on all wheels intended for passenger service.

AXLES.

For all passenger equipment, both locomotives and cars, steel axles will be used, and iron axles for all freight equipment, including locomotives and cars.

The limit of axles for passenger service will be 60,000 miles. After axles have run the specified time, they will be placed in freight service. Those taken from passenger cars will be

age, with supposed cause. A sketch, showing locality and nature of break, should be given on report.

6. *Good for Freight*.—Under this head will be included all passenger axles that are still good, after making the mileage required in passenger service.

Every axle after being drawn must be callipered, and diameter of journal given in report.

In reporting wheels and axles placed in service care should be taken to note opposite each one both the date received and used:

5. 3. 75.

thus 5. 3. 75, with the place from where received, and if from a locomotive or a car, the number should invariably be given.

When drawing wheels or axles the positive cause should be given in each case with date and locomotive or car number, specifying also whether passenger or freight.

It frequently occurs that tenders from other locomotives or extra tenders are transferred to locomotives whose tenders are out of service either in shop or from some other cause. In such instances note should be made on weekly reports, showing date when transfer was made, the same mention being made when tender is returned to its own locomotive.

Under no circumstances will a freight wheel or axle be placed

a person to test the oils and other lubricants used on that road, and the officers report that the company has reaped great profit therefrom. The testing department of the Pennsylvania Railroad is located in a small room in the second story of the machine shop, and has the appearance more of a practical workshop than of a scientific laboratory. It is also necessary to say that it is somewhat poorly equipped with apparatus for making physical investigations, and has hardly any for chemical analysis. Nevertheless it is the first distinct recognition of the value of scientific knowledge in the operation of a railroad, and although but a beginning, it is believed it will lead to very great reforms and improvements. The danger is that the scientific department may assume the character of an end and not a means to an end. To a person with a love for such investigations scientific research is so fascinating that it soon becomes the chief object of pursuit, and it is very easy for a scientific student to forget the interests of stockholders,

while he is intently absorbed in making original investigations. In the management of a railroad, science should be entirely subordinate to certain definite and practical ends, for the attainment of which railroad companies are organized. These are the carrying of freight and passengers cheaply, safely and quickly. If, therefore, as has sometimes happened, when the aid of science has been sought, it should wander away among the stars, instead of following the track of the locomotive, it is quite sure to be speedily suppressed, and the direction of affairs revert to the hands of "practical men" who pride themselves on not knowing what other persons do. To quote from a letter received from the manager of a wheel foundry, to whom some recommendations were made to seek the aid of science in his business, "The practical men get the best results so far. Our foreman of foundry does not know what carbon is, nor what percentage of anything there is in any brand of iron that he uses, but he will pick out the right pigs by his eye in any iron yard, while his wheels outwear two of those of the deep scientific fellows."

Now, this remark, although it is true of a certain kind of scientific knowledge, is not true if science is properly applied. Several wheel makers have now regularly established laboratories for chemical and physical research, in which the materials of which wheels are made are analyzed and tested, and they report that the information gained in this way has already amply repaid the cost. To be profitable, the scientific men must beat the "practical fellows," not in the use of fine words but in the production of better wheels or other practical work. A chemist may discourse very learnedly about combustion, and yet a skillful fireman will often beat him in the economy of fuel with no other instrument than his shovel and little other education than that of practical experience. Some one has said that science is only a superior quality of common sense, which is perhaps as good a definition as could be given. The fact, however, that a leading railroad has made arrangements to avail itself of this kind of knowledge is very encouraging, and indicates an immense step forward. It is, of course, impossible to anticipate the advantages that will result from such a step, but it can hardly be that a road which uniformly tests the bar iron it buys, so that all that it uses will bear a strain of 50,000 lbs. per square inch, has not an advantage over a road which buys inferior iron, which will bear only 40,000 lbs., and does not know it.

In the testing department at Altoona, as has already been indicated, there are daily tests made of the iron employed in the wheel and also in the general foundry. These, with a record of the kinds of iron melted, are carefully entered in a book, so that they can be referred to at any time. Tests are also made of the strength of pig and bar iron. The use of phosphor bronze for car-journal bearings has now become general on this road. Being a comparatively new material, its quality, strength, etc., are constantly tested. As has been stated in these pages heretofore, this alloy is not a chemical combination of metals, but simply a mechanical mixture. When examined under a microscope its fracture appears like a sponge of copper, the interstices or cells of which are filled with a softer metal having the appearance of lead. So great is the tendency of these metals to separate that it is necessary to pour it at as low a temperature as possible and at the same time keep it intimately mixed by stirring it actively. It is also found that the mixture is more perfect if the casting is cooled suddenly, and therefore it is proposed to cast the bearings in iron moulds or chills. The castings made from this metal are constantly examined under a microscope, are tested for transverse and tensile strength, and the results of various processes employed are carefully watched and recorded. By these means it is obvious that the results of the use of this metal can be determined with a much greater degree of certainty than would be possible with only the ordinary impressions and observations.

Oils are tested in a machine with a revolving shaft, on the bearing of which a definite quantity of oil is fed, the temperature determined by a thermometer and the number of revolutions indicated by a counter.

The testing department was under the charge of Mr. J. W. Cloud. We have learned that Dr. Dudley, formerly of Poughkeepsie, New York, an accomplished chemist and physicist, has been employed by the company to conduct investigations in the special department of his profession.

THE TRAINING OF RAILROAD MEN.

The Pennsylvania Railroad Company has within the past few years adopted the policy of taking a number of educated young men into its employ, and training them in the different departments of railroad management, so as to produce a regular supply of not only educated but practical officials. At the present time there are from twenty to thirty such men employed in Altoona, some of them in the drawing-room, others in the shops and on the road. The testing department and the wheel foundry are both under the charge of such persons. Many of the sections of track are also supervised by them, and the practical result is that there is growing up about this line a corps of experienced and accomplished officials such as cannot be found on any other railroad in the country. Of course these men are laughed at a good deal by the older and more experienced men—perhaps at times with some justice; but although there may at times be some amateur railroading, those who are laughed at don't seem to mind the sneers of the older men, and the evil of inexperience, if it be one, will cure itself in time, and when cured, the policy will bring with it the immense additional advantage of having a body of men who are both experienced and educated in the ordinary sense of that term. There is of course such a thing as valuing too much the knowledge which comes from study alone, and that which is learned by practical experience too little, and perhaps the practice of the Pennsylvania Railroad Company may have erred in this respect; but generally there has been shown an appreciation of the value of intelligence, of knowledge, and of education, such as no other railroad company has indicated,

which, if persevered in, will in a short time bring its reward in the form of reduced expenses and greater net earnings.

Precisely what the process is by which the candidates for such positions as have been described are selected was not explained to the writer, but that there is a considerable amount of active "thirst for knowledge" among them is shown by the fact that they have organized an association for the discussion and investigation of matters relating to their occupations and the art of railroading. The meetings are very informal and are held in a room which is furnished and provided by the railroad company for the purpose. Short papers are prepared on various subjects and are there discussed. Of course with the operating accounts of a great railroad to a great extent open to the members for examination, with the means afforded for observation, investigation and experiment, there are opportunities for gaining information which no educational institution can provide, and which, if properly appreciated and used, will furnish the very best possible facilities for a special technical education.

There is, however, so much of special interest at Altoona, and the description and engravings already occupy so much space, that the completion of what still remains to be said must again be postponed to another week.

THE PULLMAN PALACE CAR COMPANY REPORT for the year ending with July last, some figures from which we published with comments recently, has been published in full in a Boston paper, and is copied in this number of our paper. It will be read with great interest, doubtless, as the company has relations, direct or indirect, with a very large number of railroad companies. The deductions which we made from the scanty figures in our possession in our previous article need modification in many particulars to agree with the facts as presented in the full report. By this latter, the working expenses of the Pullman Palace Car Company proper, including maintenance, taxes and insurance, were \$907,421.19, while the earnings were \$2,022,629.77, so that the expenses were very nearly 40 per cent., and at the rate of \$1,913 per car owned. As the total investments of the company in other sleeping-car companies were about \$2,000,000, and its dividends from them less than \$24,000, they would appear to be unprofitable; but as these investments doubtless secure it the control of some lines which it works, and whose profits it gets directly, this may be an incorrect inference. Its proportion of the earnings of the lines which it works but does not own is given as about \$501,000, and its expenses in conducting this business is \$175,925, leaving a profit of \$325,023, which, of itself, gives a return of more than 16 per cent. on the total investments in such companies. The report indicates that the company's business is abundantly profitable. The reduction of the dividend was advised by a resolution of the company, which gives as reasons the desirability of paying off certain maturing funded debts from income, which means a reduction of the capital account; and further, the need of a surplus "to pay for construction of additional cars, rendered necessary by the increasing demands of the business of the company." The latter we do not quite understand. The resolution was passed on the 1st of November, just as the cars were excluded from the Michigan Central and New York Central route; and at that time preparations were being made to store surplus cars at Aurora, Ill., where new side track was laid for that purpose. It is quite probable, however, as we have said, that the Centennial Exposition next year may cause a demand for all its old and much new stock.

THE PACIFIC RAILROAD CONVENTION held in St. Louis last week has brought into prominence the proposition that the Government shall advance the aid necessary to secure the completion of this road. Last year we suppose that any application of this kind would have stood no chance of success; at this session of Congress doubtless the opportunity is more promising, and those interested in the project have developed a strong support for the measure in certain localities and among certain interests which possess great influence on legislation. Strongest of all, perhaps, is the sentiment that this road would be a special benefit to the South, and that it would be a gracious act to do the South a special favor. We are unable to view the road in this light, but that will probably be the popular view, and it seems to us to be the one thing that may enable the company to succeed in getting Government aid. The general sentiment is doubtless opposed to such grants of aid, especially since the Credit Mobilier scandals, and without any doubt one road can—if it will—carry all the traffic and carry it much cheaper than it will be possible for two to do, while both termini of the Texas & Pacific are hundreds of miles south of the districts from which nine-tenths of its traffic must come; but the public, and perhaps its representatives, will hardly consider these questions, and if it is thought that the legislation asked for will please the South greatly, then the question of expense will probably be the only formidable obstacle to its passing.

THE KEEKUK & KANSAS CITY RAILWAY COMPANY, it seems, is represented in England by Mr. Edward Vernon, widely known in this country among railroad men, formerly as a general ticket agent, afterwards as founder and editor of the *Official Railway Guide*, and latterly as the proprietor and editor of the "American Railroad Manual." Mr. Vernon, after the attack in the London *Times* on the prospectus of this company's bonds, wrote a reply which the *Times* refused to publish, but which the institution issuing the bonds advertised in 200 English papers. As we have said before, the prospectus of the company was much like that of the scores of other new American railroad companies that have asked for and obtained money in England since our war—most of which, however, are now unable to pay interest. The statements of the condition of the property seem to be more truthful than has usually been the case in these documents; so much truth was told, at least, that we should suppose that the bonds would not be likely to tempt investors who know anything of the recent history of

new railroads in this country. But the institution which undertook to negotiate the loan, the "Co-operative Credit Bank," seems to deserve all the hard words that have been said of it by the *Times* or other journals, judging by the journal which its manager publishes as a sort of official bank organ. It ought to be enough to say that it promises interest at the rate of 18 per cent. to subscribers to its capital.

General Railroad News.

THE SCRAP HEAP.

British Rail Exports.

The exports of railroad iron of all kinds in tons, according to the Board of Trade, have been:

Month of October:	1875.	1874.	Decrease.	P. c.
Total	40,732	67,542	26,810	39.6
To United States	82	101	19	49.0
Ten months ending with October:				
Total	488,212	705,537	217,325	30.8
To United States	6,838	11,249	4,411	39.3

Our receipts this year would suffice for about 78 miles of track only. Only two countries, Peru and British North America, have taken more rails this year than last, the former's imports being equivalent to about 136, the latter's to 960 miles of track. The average value of the entire exports was £10.02 this year, and £12.45 last.

Railroad Manufactures.

The Erie (Pa.) Rolling Mill has been closed by the creditors, and a petition in bankruptcy filed against the company. The liabilities are said to be about \$227,000.

The Youngstown (O.) Rolling Mill Company is building an addition 36 by 100 feet to its mill, which will contain a new 7-inch mill, with the necessary heating furnaces.

The Cleveland Rolling Mill Company's Lake Shore Mill is running on iron rails for the Lake Shore & Michigan Southern road.

The Cleveland *Review* says: "The McNairy & Claffen Manufacturing Company's works are being run by Mr. Ed. Angel, former foreman of the works, who has rented them by the month. One hundred and seventy-five men are now employed in the works, which is considerably less than one-third the number originally employed. * * * In car-building, the works have recently completed fifty freight cars for the Utica & Black River road and are at present finishing six street cars for Milwaukee, and repairing and rebuilding several coaches, used by P. T. Barnum's Hippodrome, and belonging to the United States Rolling Stock Company."

The rail mill of the Allentown (Pa.) Rolling Mill Company started up last week, employing 200 hands.

Atkins Brothers, of Pottsville, Pa., have a contract for 450 tons of street rails for a Washington company.

The Litchfield (Ill.) Car Company recently shipped 160 box cars to the Texas & Pacific.

The Lake Erie Iron Company at Cleveland, O., recently made a general reduction of 10 per cent. in wages.

The Rogers Locomotive Works have two engines, 18 by 24 inch cylinders, to build for the New Jersey Midland.

The furnaces along the line of the East Pennsylvania road are starting up again. The East Penn Iron Company's furnace at Lyons went into blast Nov. 22; the Kutztown and Tipton furnaces are preparing to start and the Millersburg furnace will blow in as soon as some repairs now in progress are completed.

Pullman in England.

On the 2d of November the London & Brighton began running Pullman drawing-room cars on an express train between London and Brighton, a distance of 50 miles. The *Railway News* speaking of it says: "Besides the magnificent first-class carriages of the company, unsurpassed by any in the Kingdom, there was the stately Pullman car, one mass of gilding, paint and plate glass, seen from the outside, and another mass of velvet, silks and mirrors, beheld from within. As the train itself, so the company that came to take possession of it was entirely 'first-class.' Powdered footmen swarmed in the station, as plenty as blackberries, and caddy and the omnibuses brought very few indeed of the ladies and gentlemen that came to patronize the new train. At first it seemed as if the majority of the distinguished company that came flocking in did not care at all for the glittering Pullman car, quite content with the aristocratic luxuries of the ordinary first-class, and perhaps preferring the exclusiveness of the small, boudoir-like compartments to the wider range of the large saloon. But gradually the tide of favor turned. One lady after the other daintily stepped into the drawing-room car, admiring its movable arm-chairs and equally admiring the mirrors, and the uniform verdict being that it was all 'so very nice.' The Pullman was speedily occupied. The charge of eighteen pence made for the privilege of inhabiting the drawing-room during the fifty-mile journey was so very trifling as not to disturb the unanimity of even the most economically minded, and it was some time before the starting of the train that its attendant declared all the tickets taken."

A Railroad on a Drunk.

The Troy *Times* tells the following story: "The day after the excursion train passed over the New York & Canada Railroad, a man called at a store in Rouse's Point and offered a wagon-load of champagne bottles for sale. The storekeeper came out to look at the load, and, amazed at the quantity, inquired: 'Where in the name of common sense did you get all those bottles?' The seller replied: 'Why, I picked them up along the line of the New York & Canada road. Them is only a handful, mister. Why, the track is lined with champagne bottles all the way from White Hall up. It looks as if the hull Rensselaer & Saratoga Railroad had been on an almighty big drunk.'"

OLD AND NEW ROADS.

[Continued from Page 499.]

Meetings.

The following companies will hold their annual meetings at the times and places given:

Boston & Maine, in the City Hall, Lawrence, Mass., Dec. 8, at 10 a. m.

Cleveland & Pittsburgh, in Cleveland, O., Jan. 5.

Central, of Georgia, at the company's banking house, Savannah, Ga., Dec. 8, at 10 a. m.

Providence & Springfield, at the office in Providence, R. I., Dec. 6, at 11 a. m.

Chicago & Illinois River.

Mr. J. O. Hudnutt, a stockholder, has filed a bill in chancery against this company, the Chicago Railway Construction Company, the Chicago & Alton and a number of other parties. The bill asks for the appointment of a receiver and an accounting. It alleges that the Chicago & Alton Company has not fulfilled the conditions of the lease; that it has retained a large amount in bonds that were to be issued, on the ground that the coal property included in the lease was not paid for; that by taking advantage of the embarrassments of the construction company, it sought to obtain entire control of the road; that it has not completed the road as agreed, and has insisted upon changes in the original contracts to the great detriment

of the lesser company. The bill is very long and gives a detailed account of the transactions connected with the building of the road and the lease.

Mansfield, Coldwater & Lake Michigan.

The suit of Rose & Co., contractors, against this company, the referees, to whom the case was submitted, have made a decision. The claim was for some \$500,000, and the referees award gives the contractors \$130,000 on the original contract, and \$27,000 for extra work, and allows a drawback in favor of the company of \$17,000 for failure to build fences on the Toledo Branch.

Mobile & Ohio.

On the night of Nov. 21 a fire started in the shops at Whistler, Ala., near Mobile, and the blacksmith, boiler, tin shop and foundry were destroyed, causing a loss of about \$15,000. The other shops were saved and those destroyed will be rebuilt at once.

Indianapolis, Bloomington & Western.

The round-house at Indianapolis was destroyed by fire on the morning of Dec. 1, and eight engines were badly damaged. The loss is estimated at \$75,000.

Connecticut Central.

The work is progressing steadily, and it is expected that the whole road, from East Hartford north to the Massachusetts line, 21 miles, will be completed by the middle of December. A preliminary agreement has been made for a lease of the road to the Connecticut Valley Company at a fixed annual rental of \$25,000, which will not include the Rockville Branch, for which \$3,000 a year additional is asked.

Prices of Stocks in Boston.

The Boston Advertiser gives a table showing the depreciation of various railroad stocks largely held in that city during the last four or five years. It is as follows, the first column giving the selling price during the past week, the other the price at about the same date in the years prefixed:

	1871	1872	1873	1874	1875
Boston & Albany.....	132½	1871, 160½	Dec.	27½	
Boston & Lowell.....	55	1872, 145½	"	90½	
Boston & Maine.....	110	1871, 155½	"	45½	
Eastern.....	12	1870, 128	"	116	
Fitchburg.....	130½	1871, 144	"	13½	
Northern, New Hampshire.....	74	1870, 120½	"	48½	
Old Colony.....	110	1872, 116	"	6	
Portland, Saco & Portsmouth.....	80	1871, 139	"	59	
Vermont & Massachusetts.....	93	1871, 89	Inc.	9	
Michigan Central.....	64½	1871, 126	Dec.	61½	
Chicago, Burlington & Quincy.....	113½	1870, 162	"	48½	
Cincinnati, Sandusky & Cleveland.....	9	1870, 37½	"	26½	

The only stock showing an increase is Vermont & Massachusetts, and that is an exceptional case, its value having been increased by an advantageous lease to the Fitchburg Company. In some cases the depreciation is equal to several times the present selling price.

Dividends.

Dividends have been declared by the following companies:
Boston, Clinton & Fitchburg, 3 per cent., semi-annual, on Agricultural Branch guaranteed stock, payable Dec. 1.
Northern, New Hampshire, 2½ per cent., semi-annual, payable Dec. 1.
New York, New Haven & Hartford, 5 per cent., semi-annual, payable Jan. 3.

Atlantic & Pacific.

The receivers give notice that the coupons on the equipment and income bonds, due Dec. 1, will be paid on presentation at the National Bank of Commerce in New York.

The Union Rolling Mill Company, of St. Louis, has filed a lien against the company for \$139,635 due for 1,834 tons steel rails.

Springfield & New London.

The Connecticut Valley Company, having arranged for a lease of the Connecticut Central from Hartford to the State line, is now negotiating for a lease of this road, which continues the Central from the State line to Springfield. The Valley Company has offered \$8,000 per annum for the road, seven miles long, but the Springfield people want \$9,000, and no agreement has been come to, although it is believed that the matter will be settled before long.

South Mountain & Boston.

The ground for the depot and shops at Deckertown, N. J., has been secured and work was to begin there this week. It is said that work on the cuts between Deckertown and Augusta will continue all winter. The contract calls for the completion of the road by July 4, 1876.

Considerable subscriptions have, it is said, been secured along the line of the road within the past two months. Local papers, however, say that there is an undesirable amount of delay in settling bills.

The company apparently has not given up the idea of carrying through its proposed purchase of the New Jersey Midland. Notice is given of an application to the Legislature for an amendment to the charter, authorizing the consolidation of the two companies.

Hamilton & Lake Erie.

The consolidation of this company and the Hamilton & Northwestern is complete as far as the companies are concerned, but will have to be ratified by act of Parliament. The Lake Erie road is completed from Hamilton, Ont., west by south to Jarvis, 32 miles. The Northwestern is now under contract, and is, if the contract is carried out, to be completed from Hamilton to Georgetown by Sept. 1, 1876, and to Collingwood on the Georgian Bay by Oct. 1, 1877. Much of this latter line will be parallel and near to the Northern road.

Marquette, Houghton & Ontonagon.

The winter time-table of this road shows a passenger train each way between Marquette and L'Anse, 62.9 miles, and one each way between Marquette and Humboldt, 26.3 miles. Both of these become mixed trains west of Ishpeming, 14.9 miles from Marquette. There is also one train each way over the Republic Branch. The ore trains, which are numerous in the season of navigation, are entirely suspended in the winter.

Chatham Branch.

The grading of this line is all completed from the junction with the Intercolonial at Barnaby's River to the station in Chatham, N. B., 8½ miles. The Government has agreed to furnish rails and to lend equipment, but the tracklaying and the extension from the Chatham station to the wharf on the Miramichi River has been postponed till Spring.

Prince Edward's Island.

The Charlottetown (P. E. I.) Times says that since the opening of the Island railway, in May last, the passenger traffic has been much larger than the most sanguine of the supporters of the railway supposed it would be; and there is no doubt that the freight receipts will largely increase annually. Comparatively little grain has been transported on the line as yet, as the grain crop of 1874 was shipped or disposed of in a great measure before the railway opened; but the crop of 1875 is being moved, and during the next month, large quantities of grain will be transported for shipment, and the rolling stock of the line will be tested to its utmost capacity. Complaints are, however, made of a want of efficient locomotives, and a lack of snow sheds and fences, but this will, no doubt, be remedied at an early day. The line is 197½ miles in length, and the

rolling stock consists of 14 locomotives, 14 first-class cars, 9 second-class cars, 5 postal cars, 5 snow ploughs, 4 flangers, 123 box cars, 40 flat cars. There are eight regular trains received and dispatched at the Charlottetown station daily—four inwards and four outwards.

The Times thinks that the passenger fares are too high, and while admitting the justice of a rate of three cents a mile on roads of such expensive construction as the Intercolonial, costing \$43,000 a mile, believes that on the Island road, costing only \$16,000 a mile, a rate of two cents a mile for first-class, and one cent a mile for second-class, would be sufficient. It says that as the railway is a surface one, and much longer in proportion than a costly direct or air-line road, the farmers have to pay for being carried around the curves.

Kent Branch.

This road is intended to connect the town of Richibucto, N. B., with the Intercolonial, at a point not yet decided on. Two lines have been surveyed, one, the Northern line, 28 miles long, which, however, passes through an unsettled country, and the other, or shore line, which is 37 miles long and runs southward, parallel with the sea shore to Shediac. The latter, it is claimed, will not cost very much more to build than the other, and will accommodate all the settlements of the region. The Government is expected to supply the rails.

Utica, Ithaca & Elmira.

It is expected that the whole line from Elmira to De Buyer will be completed next month, and it is said that the company will then begin work on an extension from Elmira westward to Corning, the object being an independent connection with the Corning, Cowanesque & Antrim road. There is also talk of completing an independent line to Utica next season, and of a Syracuse connection.

North Shore, of Canada.

In Quebec, Nov. 22, the stockholders met and voted unanimously to ratify the transfer of the property to the Government on the conditions already agreed on. These are that the Government shall assume the debts of the company, shall complete the line from Quebec to Montreal and the Piles Branch, and shall reimburse the private stockholders some \$18,000 paid in by them. The municipal subscriptions are transferred to the Government.

Sussex & Queen's County.

This projected line, surveys for which are now being made, is to run from the Halifax & St. John line of the Intercolonial at Sussex, N. B., north by west to the head of Grand Lake, some 60 miles. The surveys, as far as completed, show a very good line with light grades. It is intended hereafter to extend the line from Grand Lake northward through the lumber region.

Petitcodiac Branch.

Surveys have been made for this line, which is to be about 21 miles long, from the Halifax & St. John line of the Intercolonial at Petitcodiac, N. B., northwest to the Canaan River. It will there connect with another projected line to Grand Lake.

Northern Pacific.

It is reported that out of the \$30,000,000 first-mortgage bonds nearly \$23,000,000 have been delivered to the Farmers' Loan & Trust Company of New York, to be exchanged for preferred stock in the new company. An additional amount of \$2,000,000, which has been paid in for purchases of land, has lately been canceled, leaving only about \$5,000,000 yet outstanding.

New Jersey Midland.

The new winter time-table shows that the receivers anticipate less than the usual falling off in travel this season, there being no reduction in train service. The milk train continues to be heavy, and the receivers have ordered from the Rogers Locomotive Works two engines especially for that service. They are to be very heavy engines—40 tons each—and will have 18 by 24 inch cylinders, with driving-wheels five feet in diameter.

Boston & New York Air Line.

The mandamus case to enforce the guarantee of the town of Chatham, Conn., on \$40,000 New Haven, Middletown & Willimantic bonds has been decided against the town, which consequently becomes liable for that amount of bonds, which, with the interest overdue, will amount to about \$54,000. This decision also involves a similar one in the suit against the town of Middlefield, which rests upon the same principle.

Providence & Springfield.

It is said that this company has decided to go on at once with the construction of the extension of 16 miles from the present terminus at Pascoag, R. I., to Putnam, Conn. There is talk of a further extension towards Springfield next season, the plan being to build to Palmer on the Boston & Albany and to use the track of that road thence to Springfield.

Louisville, Cincinnati & Lexington.

The Auditor, Mr. Wm. Mahl, reports the earnings and expenses of the road for October as follows:

Passenger receipts.....	\$52,386 67
Freight receipts.....	59,378 55
Express, mail, telegraph and miscellaneous.....	7,137 80
Total receipts.....	\$118,903 02
Ordinary working expenses (58.12 per cent.).....	\$69,107 84
Renewal of ties and rails.....	8,909 30
Total expenses (65.61 per cent.).....	\$78,017 14
Net earnings.....	\$40,885 88
Rentals and guarantees.....	\$4,837 79
State tax.....	1,451 25
Construction.....	506 03
	6,795 07
Balance.....	\$34,090 81

The balance of \$34,090.81 remaining from the operations of the month is subject to the order of the Court.

Canadian Pacific.

The opposition to the enormous expenditure required for the construction of this line appears to be gathering strength, and is finding expression in such utterances as the following, from the *Canadian News*: "What is the amount of funds needed may be easily estimated. The Pacific railway from Omaha to San Francisco, a distance of 1,700 miles, cost over \$240,000,000. If so much railway through a comparatively settled country, with great facilities for procuring supplies, with an enormous population at each end of the line, connected on the east with the entire railway system of the United States, and on the west with the railways and cities of Oregon and California, cost such an enormous amount per mile of line, what would be the cost of 2,700 miles of railroad from the southern end of Lake Nipissing, where nobody lives, along the north shore of Lake Superior, where nobody could live, thence along in the vicinity of the fifty-third parallel through an uninhabited region, and so on across the Rocky Mountains and the 'sea of mountains' beyond to the Pacific Ocean and our settlement of ten thousand whites in what is called British Columbia? The question is a simple one in simple proportion, which I venture humbly to submit as a little exercise for the officials in the Colonial office. In order to approximate to accuracy in figuring out the result, it would be well to bear in mind that the greater portion of the line would be over eight degrees north of the cold region where stands Canada's capital; that the obstacles in the way of obtaining

supplies would be tremendous, if not insurmountable; that the season for working would be very short; that timber for sleepers, ties and bridges would not be easily procured in the immense treeless plains of 'the great lone land'; and, without reckoning upon the displeasure of the Indians at invasion of their hunting grounds by railway navies, it will become discoverable that it would tax the resources of the Empire to carry out Lord Carnarvon's little project. At all events, it is something entirely beyond the capacity of the 3,600,000 inhabitants of the older provinces to earnestly attempt. And were the road constructed, it would not do anything to increase commercial relations between Montreal and Vancouver Island. * * * Without traffic or passengers, what would the stock of the Canada Pacific be worth? The agreement entered into with British Columbia to build the road was not only the worst act of the Macdonald Administration, but the most foolish arrangement of the interprovincial kind upon record. The grand mistake of the present Administration, and they perceive it now when almost too late, lay in not promptly repudiating it."

Commenting upon this, the *Toronto Nation* says: "But now there is not a man of sense in the country who does not in private at least avow his belief that the project, westward of Manitoba, must be abandoned. To this conclusion the Government, we have no doubt, has practically come. The section eastward of Lake Nipissing is already under contract. A connection will be made with Manitoba; and there the Government will stop. The British Columbians, so far as can be ascertained, care very little for the railroad or for the connection with Canada; what they care for is the expenditure of money in British Columbia. The tribute, enormous in proportion to their numbers, which Canada is to pay them under Lord Carnarvon's award, with the useless lines east of Lake Nipissing, will remain a monument of party government and of Downing street direction."

Denver & Rio Grande.

Work on the extension from Pueblo, Col., southward to Trinidad was begun by the contractors Nov. 26, a large force being put upon the grading. The line was partly graded two years ago, and but little work will be required for some distance from Pueblo. The iron was expected to arrive this week, when tracklaying was to begin.

Massachusetts Central.

Surveys are still in progress for the projected extension from Westfield to Boston Corners, where it will meet the Rhinebeck & Connecticut and the Poughkeepsie, Hartford & Boston roads. It is said that a practicable and easy line has been found, and it is claimed that by this line the distance from Boston to Poughkeepsie will be 199 miles, or 15 miles shorter than by way of Springfield and the proposed cut-off from that city to the Connecticut Western at Tarrifville, and that a new line to New York will be opened by this road and the Harlem from Boston Corners. The distance from Westfield to Boston Corners is 53 miles, from Boston to Westfield 110 miles. Meanwhile nothing is being done on the original line, though there is talk of a resumption of work in the Spring.

Chesapeake & Ohio.

In the United States Circuit Court at Richmond, Nov. 27, a motion was made for the dismissal of the foreclosure proceedings under which the Receiver was appointed. The grounds for the motion were that jurisdiction in the case belonged of right to the State-courts and not to the Federal courts. After hearing arguments from counsel, the Court stated that it was not ready to hear such a motion, and, at the request of counsel, appointed a further hearing to be held at Alexandria, Va. Dec. 20.

Washington City, Virginia Midland & Great Southern.

Another new survey has, it is said, lately been made for a new line from Orange Court House, Va., to Charlottesville. This, if built, as the company has desired for some time past, will give it a line of its own and will avoid the necessity of using the Chesapeake & Ohio track from Gordonsville to Charlottesville.

Havana, Rantoul & Eastern.

A narrow-gauge convention was to be held in Canton, Ill., Nov. 30, the object being to advance the interests of this road and to harmonize and unite, if possible, the many narrow-gauge projects now afloat in Northern Illinois and Eastern Iowa.

Texas & Pacific.

A Fort Worth (Tex.) dispatch says that Roache & Tierney, sub-contractors under the Tarrant County Construction Company for grading the Texas & Pacific from that place to Eagle Ford, commenced work Nov. 22, with a good force. The work will be prosecuted continuously until the whole 23 miles are graded.

Central of Iowa.

Messrs. Russell Sage, N. A. Cowdrey and others have issued a circular to the first-mortgage bondholders, in which they claim that the recent decree of sale is void for certain technical reasons, and invite bondholders to sign a power of attorney and send it to N. A. Cowdrey.

Lake Superior & Mississippi.

A report that the trustees under the first mortgage had taken possession of the road, is contradicted, by authority, by the St. Paul *Pioneer-Press*, which says that the present management is not at all likely to be disturbed, as it meets fully with the approbation of bondholders.

Pacific of Missouri.

In answer to the demand that the present board should resign, President Hayes has written a letter in which he asserts that the charges of dishonesty made against the board are false, and insinuates that the demand does not meet with the approval of any large number of genuine stockholders. He claims that the third mortgage was duly authorized by an almost unanimous stock vote and that the bonds issued under it have been honestly used. The board must decidedly refuse to resign under the charges which have been made, in their own defence.

In answer to this letter the stockholders' committee has written another, in which they remind the board that they are only the agents of the stockholders. They say that the members of the present board hold only 209 shares; that the bonded debt has been increased \$5,800,000, and ask why the directors should be reluctant to have the accounts examined, if the amount has been honestly spent. They charge that several of the directors are interested in a movement to foreclose the third mortgage and buy in the property. They suggest that a general meeting of stockholders be called as soon as possible, in order that their real wishes may be known.

Mr. N. A. Cowdrey and other stockholders, filed a bill in equity against the company in the United States Circuit Court at St. Louis, Nov. 25, praying that the third mortgage for \$4,000,000 may be set aside as illegal and void, that an accounting with the Atlantic & Pacific Company may be had, and that the lease of the road to that company may be terminated and set aside. The bill charges that the present directors have only a nominal interest in the stock; that they hold or control all or nearly all the third-mortgage bonds issued, and that the foreclosure proceedings recently begun were instigated by them, their object being to buy in the property in their own interest, and defraud the stockholders.

After some discussion by the counsel for various parties, the Court took the bill. The Court was understood to say that the

matter might take such shape as to make it necessary to dispossess the present board of directors, and order a new election. The stockholders joining in the bill claim to hold 30,415 shares; most of them are from New York.

Grand Rapids & Indiana.

The following agreement made between this company, the Continental Improvement Company and the Pennsylvania Railroad Company, was approved and confirmed by the unanimous vote of the stockholders of the Grand Rapids & Indiana Company at the last annual meeting:

1. That the Pennsylvania Railroad Company shall purchase and hold the guaranteed interest coupons of the first-mortgage bonds of the Grand Rapids & Indiana Railroad Company, as they mature, except such as the net earnings of said railroad company shall be sufficient to meet. In consideration for which the Continental Improvement Company will consent that the entire proceeds of the land sales shall be applied to the purchase of the first-mortgage bonds, so long as they can be purchased at not over par, and to the purchase of the coupons at par in gold, or their equivalent in currency at the date of maturity.

2. The Continental Improvement Company will consent, further, to the cancellation of all bonds and coupons so bought, and agree to receive from the Grand Rapids & Indiana Railroad Company, at par, the income bonds of said company, secured by mortgage bearing 7 per cent. interest, to be issued to an amount not exceeding \$10,000,000, the same to be issued to the Continental Improvement Company, for the currency value of such said bonds and coupons at the date of their purchase as may have been purchased and paid for with the proceeds of land sales and been delivered for cancellation, said income bonds to be created and issued only in redemption of the first-mortgage bonds and interest coupons attached thereto.

3. The Continental Improvement Company to request the Grand Rapids & Indiana Railroad Company to issue the income mortgage bonds herein provided for, and to exchange the same on the terms of this proposition for the cancelled first-mortgage bonds and coupons of said railroad company, with the view of paying off all of said first-mortgage indebtedness and leaving their entire property, after such payment, subject only to income bonds, and thus protect, in the best manner possible, the interests of the shareholders.

4. Said railroad company shall continue to apply its net revenue to the payment of the interest coupons on its first-mortgage bonds, and the arrangement to be entered into hereunder to continue until all of the first-mortgage bonds and the coupons that shall have matured shall be redeemed and delivered to the Grand Rapids & Indiana Railroad Company for cancellation.

Detroit, Lansing & Lake Michigan.

The company has had much trouble with a bad sink-hole between Leroy and Fowlerville, Mich. The Lansing *Republican* says that some two weeks ago the track sunk for a length of 300 feet, so that trains could not pass over it, and transfers of passengers and baggage had to be made. In a few places the track sunk to a depth of 15 feet. A strong force of men was set at work, huge trees were thrown into these holes, earth piled on, and every effort made to obtain a firm foundation, but so far with only partial success. The track sunk again for a few inches in some places. Trains were only able to cross by running very slowly and with exceeding care.

Detroit & Milwaukee.

A plan of reorganization was prepared by the English bondholders' committee some time ago, and is still pending, having received the assent of holders of some \$2,000,000 of bonds. This plan provides that the mortgages shall be foreclosed, the road sold and a new company organized. This company is to issue new securities as follows:

1. First-mortgage bonds to the amount of \$2,000,000, of which \$701,867 will be used to exchange for the sectional first mortgages and accrued interest, the balance to be used for the benefit of the road. It is expected that the first and second-mortgage bondholders will take \$450,000 of these bonds at par for cash, to supply funds needed at once.

2. Consolidated bonds to the amount of \$5,350,000 to be exchanged for the present first and second-mortgage and funded-coupon bonds with accrued interest.

3. New 4 per cent. bonds to be issued in exchange for the Street-Douglas bonds, secured by a mortgage on the line, but without right to foreclose.

4. If practicable, no stock to be issued, the consolidated and 4 per cent. bondholders to have votes and to divide *pro rata* any surplus left after paying all charges.

Anderson, Lebanon & St. Louis.

It is said that President Zion has contracted in New York for iron for the graded section of this road, from Anderson, Ind., to Noblesville, about 20 miles. The first of the iron is to arrive early in this month, and tracklaying is to begin at once.

Credit Valley.

The people along the projected line are urging the Government to grant further aid under the Railway Act of the Dominion of Canada. Unless a Government subsidy is obtained, it is thought that the company will be unable to go on with the road, and the work already done will be lost.

Manhattan Railway.

This company, having failed to secure the consent of the property-owners to the construction of an elevated railroad through the streets of New York on the route laid down, has applied to the New York Supreme Court for the appointment of a commission under the terms of the law under which the company was organized. This commission will determine whether the road shall be built in spite of the opposition of the land-owners.

Panama.

The Supreme Court heard arguments in New York, Nov. 29, on the application for a permanent injunction to restrain the company from establishing a steamship line between New York and San Francisco. The Court reserved its decision.

Philadelphia, Wilmington & Baltimore.

The new train which takes the mail from the fast train at Philadelphia and carries it to Baltimore and Washington began to run Nov. 22. It takes the place of the former local morning mail train, and is run at the ordinary rate of speed only.

A new round-house is being built at Wilmington, Del. The foundations are on marshy ground, making it necessary to use piles.

The old ferry-boat Maryland, long used to transfer trains across the Susquehanna at Havre de Grace, but laid up since the completion of the bridge there, has been sold to some Boston parties. It is said that she will be repaired thoroughly and used to transfer cars from the Harlem River terminus of the New York, New Haven & Hartford road to the Pennsylvania at Jersey City.

Chicago, Milwaukee & St. Paul.

Some trouble and delay was caused last week by ice in the Mississippi, which prevented the usual transfer of freight at La Crosse. The floating ice also forced and kept open the draw of the pontoon bridge at McGregor. This latter trouble, however, was remedied after a day or two, and cars are now transferred from McGregor to Prairie du Chien over the bridge as usual. The winter bridge near La Crosse was completed Nov. 27, and connection established between the La Crosse and River divisions and the Southern Minnesota road.

Vice-President Wadsworth has written a letter to the New

York Stock Exchange committee saying that his company fully indorses the views of the committee as to the regular publication of statements of earnings. The weekly and monthly earnings will be furnished promptly for publication, and expenses and net results as soon after the close of the year as possible.

Wyandotte, Kansas City & Northwestern.

The town of Grand Pass last week voted down the proposition to subscribe \$50,000 in aid of the extension eastward of this road. No more town or county bonds can be voted, as the constitution of Missouri, which went into effect Dec. 1, prohibits all municipal subscriptions to railroads.

New Orleans, St. Louis & Chicago.

Rumors have been current that the Illinois Central Company was about to secure possession of this road by foreclosing the mortgage under which the bonds of the road which it holds were issued. Officers of both companies, however, deny all knowledge of any such intention.

Wisconsin Central.

The tracklayers on the extension from Stevens Point, Wis., to Portage are at work between the former place and Plover. The grading has reached the crossing of Buena Vista Creek, where the bridge-builders are also at work. The company is building machine shops at Stevens Point.

The Brotherhood of Locomotive Firemen.

This association held its annual convention in Chicago last week, remaining in session several days. The proceedings were private, but it is understood that the convention considered and adopted a plan of mutual insurance, elected officers and adjourned to meet in Baltimore next year.

Blue Ridge.

At a recent meeting, the Knoxville (Tenn.) Board of Trade received a long report from a committee, urging the great importance of the road to Knoxville. There was some discussion, some members thinking that the city should rather aid in the completion of the Morristown and Western North Carolina line, but a committee was finally appointed to confer with the present owners of the Tennessee end of the Blue Ridge road, and see what can be done towards its completion.

Lafayette, Muncie & Bloomington.

The State Court having refused to enjoin this company from crossing the track or running upon a part of the right of way of the Indianapolis, Cincinnati & Lafayette, near Lafayette, Ind., a new form of litigation has been tried. A suit has been begun in the United States Circuit Court by G. Hoadley and B. E. Smith, as trustees under one of the mortgages of the Indianapolis, Cincinnati & Lafayette, and that Court is asked to enjoin the new road on the ground of the prospective injury to the property of the bondholders represented by the trustees.

New Brunswick.

The track is now laid and trains are running to Fort Fairfield, just over the New Brunswick line in Maine, and 10 miles west from the late terminus at Andover, N. B. This section runs up the Aroostook Valley, and is, we believe, a branch, the main line being intended to continue up the Valley of the St. John.

Bloomington & Eureka.

There is talk of building a railroad about 21 miles long, from Bloomington, Ill., northwest to the Toledo, Peoria & Warsaw, at Eureka. It is claimed that it would develop a considerable local traffic and open a new line from Bloomington to Peoria.

Atlantic, Mississippi & Ohio.

The Petersburg (Va.) *Star* of recent date says that letters just received from General Mahone give the pleasant intelligence that the English bondholders have exhibited the most liberal disposition to accommodate their demands to the temporary necessities of the company. The negotiations so far have been uninterruptedly successful, and General Mahone writes that he has no doubt of consummating his arrangements, and gaining for the road all the forbearance for which the directory asked. In fact it may be inferred from the tone of his letter that the business is already settled, for he speaks positively of returning to this country early in December.

Jamestown & Franklin.

It is said that some of the stockholders of this company will soon begin legal proceedings by a writ of *mandamus* against the Lake Shore & Michigan Southern Company, as successor to the Cleveland, Painesville & Ashtabula. These stockholders claim that none of the stipulations of the lease of the Jamestown & Franklin road to the other company have been fulfilled; that no regular meetings of the lessor company have been held for four years past; that the road has been worked in the interest of a few stockholders; that no dividends have been paid, and that they are compelled to bring suit to save their interest in the road.

Utica & Black River.

The new extension to Morristown was formally opened by an excursion Nov. 23. A number of railroad officers and invited guests were present and passed over the road to Morristown, then crossed the St. Lawrence to Brockville, where they were entertained at a banquet. Regular trains began running Nov. 24.

The length of the company's lines was a little overstated last week, the length of the line from Carthage to Morristown being 49½ miles, instead of 53, as then given. The distance from Utica to Morristown is 123½ miles, and the corrected statement of the company's lines is as follows: Utica by Carthage and Watertown to Sackett Harbor, 103 miles; Carthage to Morristown, 49 miles; Theresa Junction to Clayton, 16 miles; total, 168 miles.

The new Morristown line, besides a considerable local traffic, mainly in dairy products, is expected to derive a large business from some valuable stone quarries on the line and from the Shurtleff iron ore beds near Theresa, from which considerable shipments are already made. Some through travel is also expected from the connection with the Brockville & Ottawa road.

The line from Philadelphia to Morristown, 36 miles, belongs to the Black River & Morristown Company, a separate organization, which, however, is entirely controlled by the Utica & Black River. The agreement between the two companies provides that the latter company, in consideration of its payment of the interest on the bonds and certain other advances, is to use and work the road for ten years from Oct. 1, 1873, and to have all the earnings. At the expiration of that term, the stock of the Black River & Morristown Company to the amount of \$275,000 is to be surrendered and the Utica & Black River Railroad Company's stock issued therefor, so that the companies will eventually be consolidated.

Union Pacific.

The United States Supreme Court, on the appeal from the Court of Claims, has decided the question at issue between the company and the United States in favor of the company. It will be remembered that the suit was brought in the Court of Claims to recover certain money withheld by the Government, the company holding that under its charter the Government could only retain one-half the amounts due for mails and other Government transportation, the Government desiring to withhold the entire amount as an offset to interest paid on the subsidy bonds. The Supreme Court now holds that the company is right, and further decides that the company is not required to repay the interest on the subsidy bonds heretofore paid or

hereafter to be paid by the Government, until the maturity of the bonds, some 25 years hence, when the whole debt, for principal and interest of the bonds, will become due. The decision, which is concurred in by all of the judges, entirely supports the company in its position. The opinion details the history of the charter and the subsidy granted to the road, and holds that the general principle of offset, as held by the Government lawyers, cannot be considered in this case, but that the Court must be governed entirely by the charter of the company and the acts relating to the subsidy, and that its decision must rest entirely upon the terms and manifest intention of those acts.

Rutland.

The Rutland (Vt.) *Herald* says: "At the close of the Rutland Railroad hearing at St. Albans, Judge Thomas brought up a motion for an order to compel the receivers to set aside the funds accruing from the lower roads to abide the result of the suit. He claimed that the Rutland had an equitable lien on this fund, and that the managers had no right to appropriate it for any other purpose than the payment of the rent of the Rutland road. Judge Barrett said that Judge Royce informed him that the receivers were required to give a bond for the payment of this rent in the sum of \$1,000,000. It was Judge Royce's impression that it was a continuing bond upon the directors, and Mr. Fifield said it was so and binding now. Judge Prout and Governor Page denied that it was a continuing bond, and said it was given only for the official term of the directors. After the proceedings ended Mr. Fifield and Judge Royce examined the bond and found that it was as Governor Page stated. . . . A motion will be made to have this bond renewed, and it was rumored that the Court was ready to grant the motion."

The St. Albans *Messenger*, referring to this, says: "The humiliating fact remains that the Court did not know whether its officers, placed in charge of twenty millions of property, were under any obligations of personal security or not. It only shows the looseness with which this whole business has been conducted, and that there is a determination on the part of those who possess the property and pay nothing for its use to prolong such a state of blessed immunity by every means known to the law."

Savannah & Charleston.

A recently published statement of the debt of this company is as follows:

Mortgage bonds, 6 per cent., guaranteed by the State of South Carolina.....	\$310,000
Accrued interest.....	72,300
	\$382,300
First-mortgage 7 per cent. bonds.....	\$500,000
Accrued interest.....	96,250
	\$596,250
Funded coupon 7 per cent. bonds, indorsed by South Carolina.....	\$250,000
Accrued interest.....	41,000
	\$291,000
Second-mortgage 8 per cent. bonds.....	\$300,000
Accrued interest.....	65,000
	\$365,000
Total funded debt.....	\$1,335,450
Floating debt and interest, about.....	400,000
Total.....	\$2,235,450

The funded debt is \$1,335,450 and the floating debt \$392,250 per mile. The interest is calculated up to Jan. 1, 1876. Of the funded-coupon bonds it is claimed that \$70,000 were used illegally for other purposes than in exchange for coupons. The property is said to be in a miserable condition and to be depreciating still and losing business, owing to lack of means. In this condition of affairs it is urged that the only hope for the road is in an immediate sale and reorganization. The State of South Carolina, in view of its interest in the property, it is claimed, is the party which can best take action, and that view is being urged upon the State officers.

Charlotte, Columbia & Augusta.

At the annual meeting in Columbia, S. C., Nov. 10, it was resolved to appoint a committee of five stockholders to inquire into the existing agreements under which the Wilmington, Columbia & Augusta Company uses the track of this road from Columbia to Augusta; also whether the present management of the road in connection with the Wilmington, Columbia & Augusta is such as is conducive to the best interests of the general stockholders. The committee is to report to the next general meeting of stockholders.

Bangor & Calais Shore Line.

It is said that a Boston company, of which H. Blanchard is President, has offered to build and equip this road as a narrow-gauge line, provided the towns on the line will raise \$800,000. The construction company will take the balance of its pay in stock and bonds of the company at a fixed rate per mile.

Brownsville & Redstone.

Contracts have been let for the grading from the mouth of Redstone, near Brownsville, Pa., up the creek to Vance's Mill, three miles above Uniontown, a distance of 12 miles. Six miles were let to George Smith & Co., of Philadelphia, the rest to Morrison Brothers, of Lock Haven, Pa.

Wyoming Central.

A company by this name has been organized at Cheyenne, Wyoming Territory, for the purpose of building a railroad from Cheyenne northward to Fort Laramie, with the object of extending it hereafter to the Black Hills country.

New York, New Haven & Hartford.

The court has finally dismissed Mr. Goodwin's application for a permanent injunction to restrain the officers of the road from issuing free passes, holding: 1. That the issue of free passes is not necessarily contrary to the charter of the company; 2. That if it is not, a single stockholder cannot maintain a bill like this against the company; 3. That no mismanagement of the company's affairs is in any way proved, and that the intervention of a court of equity in its internal management would be improper.

The position of the company's counsel was sustained in every respect by the court. Mr. Goodwin, though beaten in the courts, will probably renew his agitation against the management of the company in the next Legislature, as he is an extremely persistent man, and one not likely to abandon his object as long as there is a remote possibility of success.

Lake Erie, Evansville & Southwestern.

A contract has been concluded for the extension of this road from Boonville, Ind., eastward. When the grading is finished from Boonville to Huntington, the company will receive \$150,000 in Evansville city bonds, heretofore voted.

Atlantic & Lake Erie.

The new construction company has under consideration a proposed contract with Vibbard, Ball & Co., to complete the road, beginning work at once.

Connecticut Valley.

At the annual meeting in Hartford, Nov. 23, the stockholders voted to authorize the board of directors to make such arrangements as may be deemed best for the lease of the Connecticut Central and the Springfield & New London roads, when completed, for a term of years, the leased lines to be worked in connection with the Valley road as a through line from Long Island Sound at Saybrook, Conn., to Springfield, Mass.

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Nantucket.

This company works a road from Stratford Junction, Conn., northward to Winsted, 57 miles, which it owns, and the leased Watertown & Waterbury road, 4 1/2 miles. It hires the use of four miles of the New York, New Haven & Hartford road, over which its trains run from Stratford Junction to Bridgeport.

The earnings for the year ending Sept. 30 were as follows:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
Passengers.....	\$186,223 83	\$191,444 77	Dec. \$5,220 94	2.7
Freight.....	286,892 22	276,922 17	Inc. 9,970 05	3.6
Mail and express.....	17,734 03	15,338 50	Inc. 2,395 53	6.4
Miscellaneous.....	10,899 01	8,021 65	Inc. 2,877 36	36.0
Total.....	\$501,896 09	\$491,727 09	Inc. \$9,269 00	2.0
Working expenses.....	\$260,277 19	\$278,217 96	Dec. 17,940 77	6.4
Taxes.....	18,791 14	19,263 74	Dec. 472 60	2.4
Total expenses.....	\$279,068 33	\$297,481 70	Dec. \$18,413 37	6.2
Net earnings.....	\$222,827 76	\$194,285 39	Inc. \$28,542 37	14.9
Gross earn. per mile.....	\$3.83	\$3.36	Inc. .47	14.3
Net.....	3.83	3.16	Inc. .67	21.2
Per cent. of expenses.....	51.90	58.37	Dec. 6.47	11.0
P. c. of exp. and taxes.....	55.04	60.49	Dec. 5.45	9.0

Passenger trains ran 85,026, freight trains 130,491, other trains 22,441 miles during the year. There was a slight decrease in passenger earnings, with a considerable increase in freight.

The income account was as follows:

Balance from previous year.....	\$251,162 02
Net earnings.....	222,827 76
Total.....	\$473,989 78
Coupon interest.....	\$6,994 18
Claims uncollectable.....	2,244 14
Loss on Watertown & Waterbury stock.....	10,000 00
Dividends.....	188,365 00
Total.....	207,603 32
Balance to current year.....	\$266,386 46

The capital stock is \$1,882,900, or \$33,033 per mile, the funded debt being only \$108,000, or \$1,807 per mile of road owned.

Richmond, Fredericksburg & Potomac.

This company owns and works a line from Richmond northward to Quantico, Va., 86 miles.

For the year ending Sept. 30 the earnings were as follows:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
From transportation.....	\$370,546 59	\$401,892 82	Dec. \$31,346 23	7.8
Other sources.....	11,751 55	47,574 91	Dec. 35,823 36	75.3
Total.....	\$382,298 14	\$449,467 73	Dec. \$67,169 59	14.9
Working expenses.....	180,049 38	269,798 73	Dec. 89,749 35	39.3
Net earnings.....	\$202,248 76	\$179,669 00	Inc. \$22,579 76	12.6
Gross earnings per mile.....	4.445 33	5.295 25	Dec. .850 92	14.9
Net earnings per mile.....	2.351 73	2.089 06	Inc. .262 67	12.6
Per cent. of expenses.....	47.10	60.03	Dec. 12.93	21.6

This does not, however, give an exact comparison of the business of the two years, as will be seen by the following extract from the report:

"In this statement the amount received from other companies on account of their proportion of the expenses of maintaining the through trains does not appear, but the difference between the total cost of maintaining the through trains and what has been received from other companies as their proportion of this expense has been included in the cost of transportation. This change in presenting the statement of receipts and expenses of the company makes an apparent falling off in its gross receipts for the year ending Sept. 30 last, as compared with that of the previous year, of \$66,959.59 instead of \$26,279.72, the real falling off, while the reduction of expenses during the year, as compared with those of the previous year, has been \$49,069.48, thus making the net revenue of the company \$202,248.76, or \$22,579.76 more than that of the previous year. This net revenue has been used to pay interest, dividends on the guaranteed stock, and other payments chargeable to the profit and loss account, and to meet large and extraordinary expenditures at Boulton, and in additions to equipment. These expenditures at Boulton, which have been for a long time contemplated by the Board, were rendered immediately necessary in consequence of a decision by the Court of Appeals of Virginia affirming the validity of an ordinance of the city of Richmond requiring the company to discontinue with the use of locomotives on Broad street, east of Belvidere street. The company have therefore been obliged to erect at Boulton a machine-shop, engine-house, office and storerooms, and remove their engines and shop-fixture to that point. In the last annual report of the directors the attention of stockholders was called to the fact that during this year a large amount of bonds, due principally in England, would mature, and that the board of directors deemed it their duty to prepare to pay punctually at maturity all such as were held by persons who might prefer their payment to their extension; and to this end to abstain from any dividend to stockholders until it be accomplished. Of these bonds thus falling due nearly or quite two-thirds have been extended by the parties holding them, or their assigns, at the time of their maturity, and the unexpired bonds now outstanding are held by or under the control of parties by whom they will be either extended or held until it may suit the convenience of the company to pay them."

The President's report is largely occupied with a discussion of the company's relations to the Pennsylvania Railroad Company. It concludes as follows:

"The course of the Pennsylvania Railroad Company, while it causes some loss to this company, is recoiling in various ways on that company. The board of directors think they may safely assert that the pecuniary loss of the Pennsylvania Railroad Company in the vain attempt now being made by them to force the Richmond, Fredericksburg & Potomac Railroad Company to give up their steamboat connection is considerably greater than that sustained by this company, and with it they are, in the opinion of this board, incurring a much greater loss in that of reputation, and in the lesson they are giving both to States and other companies to avoid as far as possible transactions with them. The board have no fear as to the result a little sooner or later in such a controversy as this. The Pennsylvania Company will find out in time, if they have not already discovered, that they have lost and are losing very largely for an impracticable object. In conclusion, the board of directors would remark that the road and other property of the company are in excellent condition, and unless that of the country should become worse than it now is they think it cannot be very long before dividends on the common as well as the guaranteed stock may be resumed with a reasonable certainty of permanent continuance."

Connecticut Western.

This company owns and works a line from Hartford, Conn., west by north to Millerton, N. Y., 68 miles. It is a comparatively new line, having been opened late in 1871, and was an expensive line to build, passing through the rugged hill country of Northwestern Connecticut.

The equipment consists of 9 engines, 8 passenger, 2 smoking, 2 combination, 3 baggage and mail cars; 2 caboose, 2 milk, 10 hay, 50 box, 127 flat and 20 dump cars. Two caboose and 10 hay cars were bought during the year.

The capital account was as follows at the close of the fiscal year ending Sept. 30, 1875:

Stock (\$27,921 per mile).....	\$1,891,844 84
First-mortgage bonds (\$44,118 per mile).....	3,000,000 00
Land purchase.....	24,000 00
Bills and accounts payable.....	125,134 94

Total (\$74,132 per mile).....\$5,040,979 88

There is also due the State of Connecticut about \$125,000 for taxes, of which no mention is made in the report. Payment of these taxes was deferred for several years by an act of the Legislature, passed in behalf of this company and several others whose lines were new and as yet unprofitable.

The earnings for the year were as follows:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
Freight.....	\$244,976 19	\$212,660 30	Inc. \$32,315 89	15.2
Passenger.....	30,765 79	121,738 64	Dec. 90,972 85	6.8
Milk.....	9,098 62	9,646 85	Dec. 548 23	5.7
Mail and express.....	6,504 87	6,746 37	Dec. 241 50	3.6
Rents.....	4,450 80	.....	Inc. 4,450 80	.....
Total.....	\$385,796 97	\$350,786 16	Inc. \$35,010 81	10.0
Working expenses.....	201,449 99	212,238 02	Dec. 10,788 03	5.4
Net earnings.....	\$184,346 98	\$138,548 14	Inc. \$45,798 84	33.0
Gross earn. per mile.....	5.673	5.159	Inc. .514	10.0
Net earn. per mile.....	2.710	2.038	Inc. .672	33.0
Per cent. of expenses.....	52.33	60.50	Dec. 8.17	13.7

The gratifying increase in earnings is partly from the steady increase in the local business of the line, partly from the opening of the new Rhinebeck & Connecticut road, and the favorable arrangements made for exchange of freight with the New York Central & Hudson River. These last causes, however, operated only during the few last months of the year. There is every prospect of a steady increase of business and earnings.

The net results of the year were as follows:

Net earnings.....	\$184,346 98
Insurance and taxes.....	\$1,786 13
Interest on loans.....	8,890 98
Rents.....	4,672 07
Interest on bonds.....	209,107 50
Total.....	221,256 68

Net deficiency.....\$37,000 70

The deficiency for the preceding year was \$58,992.53, showing a gain last year of \$21,991.83. It is believed that the net earnings will, in another year, meet all expenses, and thereafter show a balance of profit.

Old Colony.

This company works a system of roads which covers all that section of Massachusetts lying south of Boston and east of the Boston & Providence road, the only line in that district not owned or controlled by it being the New Bedford Railroad. The lines worked are from Boston by way of Taunton and Fall River to Newport, 67 1/2 miles; South Braintree to Plymouth, 26 miles; South Braintree by Abington to the main line at Somerset Junction, 37 1/2 miles; South Abington to Bridgewater, 7 miles; Middleboro to Weymouth, 8 1/2 miles; Milton Branch, 3 1/2 miles; Shawmut Branch, 2 1/2 miles; Easton Branch, 1 1/2 miles; Granite Branch, 5 miles; Cape Cod Division, Middleboro to Provincetown, 87 1/2 miles, with its two branches, Cohasset Narrows to Wood's Hole, 17 1/2, and from Yarmouth to Hyannis, 5 miles, making 269 miles in all. Arrangements have been made for the purchase of the Fall River, Warren & Providence road, from Fall River, Mass., to Warren, R. I., 5.8 miles. The company owns a controlling interest in the South Shore and the Duxbury & Cohasset roads, which together form a line 29 miles long, from Braintree to Kingston, but that line maintains a separate organization.

The equipment consists of 42 passenger, 15 freight and 6 switching engines; 141 passenger and 25 baggage cars; 308 long box, 10 short box, 24 stock, 398 long platform, 13 short platform, 72 six-wheel stone and 478 coal and gravel cars. One engine, two passenger, two freight and 17 coal cars were added during the year; 2 engines, 7 passenger, 14 freight and 20 coal cars were rebuilt. The passenger equipment is fitted with the Westinghouse brake and the Miller platform is being put on.

At the close of the fiscal year, Sept. 30, the property was represented as follows:

	1875.	1874.
Capital stock.....	\$6,733,300	\$6,687,300
Bonded debt.....	4,948,500	4,438,000
Total.....	\$11,681,800	\$11,125,300

The stock was \$25,030, and the bonds \$18,396 per mile. Bills payable were \$929,405.39 against \$868,132.73 last year. The company has \$798,500 invested in the Old Colony Steamboat Company, \$30,681.67 in the Nantucket & Cape Cod Steamboat Company, \$137,444.84 in the South Shore, and \$12,540 in the Union Freight road.

The work of the year was as follows:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
Train mileage.....	1,387,481	1,377,379	Inc. 10,102	0.7
Passengers carried.....	4,286,720	4,375,316	Dec. 88,596	2.0
Passenger mileage.....	61,295,520	63,873,026	Dec. 2,577,506	3.7
Tons freight carried.....	625,768	633,727	Dec. 7,959	1.3
Tonnage mileage.....	18,371,231	18,260,612	Inc. 110,619	0.7

The average expense per train mile was \$1.12 against \$1.18 the previous year. The coal carried was 139,904 tons, a decrease of 9,188 tons, or 6.2 per cent.

The earnings for the year were as follows:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
Passengers.....	\$1,372,607 10	\$1,456,315 11	Dec. \$83,708 01	5.7
Freight.....	741,479 69	782,838 19	Dec. 41,358 50	5.1
Express, mail and extra baggage.....	109,804 90	116,882 66	Dec. 7,077 76	6.1
Rents.....	24,848 86	23,888 43	Inc. 960 43	4.0
Miscellaneous.....	37,739 35	40,385 24	Dec. 2,645 89	6.6
Total.....	\$2,266,479 90	\$2,299,399 68	Dec. \$32,919 78	1.4
Working expenses.....	1,443,135 39	1,537,530 34	Dec. 94,394 95	6.1
Taxes.....	110,609 01	96,435 40	Inc. 14,173 61	14.7
Total.....	\$1,553,744 40	\$1,633,965 74	Dec. \$80,221 34	4.9

Net earnings.....	\$732,735 50	\$765,343 89	Dec. \$32,608 39	3.1
Gross earn. per mile.....	\$3.50	\$3.85	Dec. .35	4.3
Net earn. per mile.....	2.734	2.812	Dec. .078	3.1
Per cent. of expenses.....	63.12	64.32	Dec. 1.20	1.9
Per cent. exp. and taxes.....	67.95	66.56	Dec. 1.39	0.6

The income account for the year was as follows:

Balance from previous year.....	\$682,324 32
Premiums on bonds sold.....	39,050 00
Net earnings.....	732,735 50
Total.....	\$1,454,109 82
Interest account.....	\$259,063 84
Dividends, 7 per cent.....	467,092 50
Total.....	726,156 34

Balance at close of year.....\$677,947 48

During the year 1,443 tons of steel and 476 of iron rails, 2,480 tons of repaired rails and 101,686 new ties have been used in repairs; 16,182 feet new sidings laid; a third track from Boston to Quincy partly graded; new depot built at South Yarmouth, new coal-shed at Boston and the depots at Plympton Grove and Plymouth enlarged.

The report says: "The business of the road has considerably decreased during the past year, caused by the general de-

pression in business, which has so materially affected the railroad interests of the country. We have been able, without diminishing the train service, to cut down the expenses in nearly equal proportions, leaving the net earnings about the same as last year. The entire suspension of operations by several large manufacturing companies upon our line, and especially at Fall River, has affected our passenger receipts.

"The business with the islands in Vineyard Sound and Nantucket shows a fair increase for the year, and promises further gains in future.

"Our New York business has been particularly affected by the general dullness in trade. The boats have been managed with economy and have run without accidents, and we have received from the investment in the steamboat company dividends amounting to 8 per cent. on our investment, which, as before stated, have been credited to interest.

"The new bridge at Fall River and the connection with the Fall River & Providence Railroad have been nearly completed. It is expected that they may be opened for business before Dec. 1. The cost of the bridge has been to date, about \$242,000, of which one-quarter is to be refunded to us from the County of Bristol. Its completion will probably cost about \$30,000.

"Arrangements had been made for the transfer to this company of the Fall River & Providence Railroad on Oct. 1, and means had been provided for the payment therefor. This accounts for the large amount of money shown by the Treasurer's accounts to be on hand at the time of closing the books. The transfer of the property has been delayed, but will probably be made before Dec. 1.

"With the completion of the bridge and opening of the line between Fall River and Providence, the directors consider that but little further expenditures will be required to be met by increase of construction account, unless an increase of business requires an addition to station accommodations and equipment and an extension of our double track."

Pullman Palace Car Company.

The following is given by the Boston Herald as the financial statement in full of this company, for the year ending July 31, 1875:

INCOME ACCOUNT.

Revenue.

Earnings.....	\$2,023,629 77
Our proportion of earnings of other sleeping car associations controlled and operated by this company.....	600,948 32
Total.....	\$2,624,578 09
Patent royalties.....	11,134 13
Dividends on stock in Pullman Southern Car Company.....	20,111 00
Dividends on stock in Central Transportation Company.....	3,823 75
Total revenue.....	\$2,659,646 97

Disbursements.

Operating expenses, taxes and insurance.....	\$683,157 77
Maintenance of upholstery and bedding.....	124,283 42
Our proportion of operating expenses and maintenance of upholstery and bedding in care of other sleeping car associations controlled and operated by this company.....	175,925 26
Rentals of leased lines (Central and Southern Transportation Companies).....	284,000 00
Balance of interest, discount and exchange.....	30,451 49
Coupon interest on bonds.....	\$235,905 40
Dividends on capital stock.....	618,648 00
Total ordinary disbursements.....	\$2,162,351 34

Surplus for the year—being excess of revenue over ordinary disbursements.....	\$496,295 63
From which deduct amount expended in rebuilding and remodeling old style cars into the latest standard Pullman cars, and for discount on old cars sold.....	76,068 47
Balance of surplus for the year carried to credit of income account.....	330,227 16
Total.....	\$2,558,646 97

FINANCIAL STATEMENT.

Assets.

422 cars and equipments, including franchises.....	\$7,377,615 84
Construction material and operating supplies, including amount paid on cars in process of construction.....	446,920 22
Car works at Detroit.....	394,400 54
Estate, No. 506 Michigan avenue.....	21,901 66
Furniture and fixtures in the several offices of the company, 62 in number.....	61,292 10
Patents.....	149,364 77
2,373 shares stock in Pullman Southern Car Company.....	206,340 00
665 shares stock in Central Transportation Company.....	33,260 00
Amount invested in other car associations, controlled and operated by this company, to wit:	
Pullman Palace Car Company \$663,041 99	
Erie & Atlantic Sleeping Coach Co.....	518,850 00
Pullman Baltimore & Ohio Association.....	251,813 24
Pullman St. Louis & Iron Mountain Association.....	57,029 93
Pullman European Car Association.....	176,205 36
Chicago & St. Louis Dining Car Association.....	21,090 40
Burlington & Mississippi Dining Car Association.....	12,614 14
Balance of accounts and bills receivable and payable.....	55,979 26
Cash on hand.....	69,681 28
Total assets.....	\$11,287,390 72

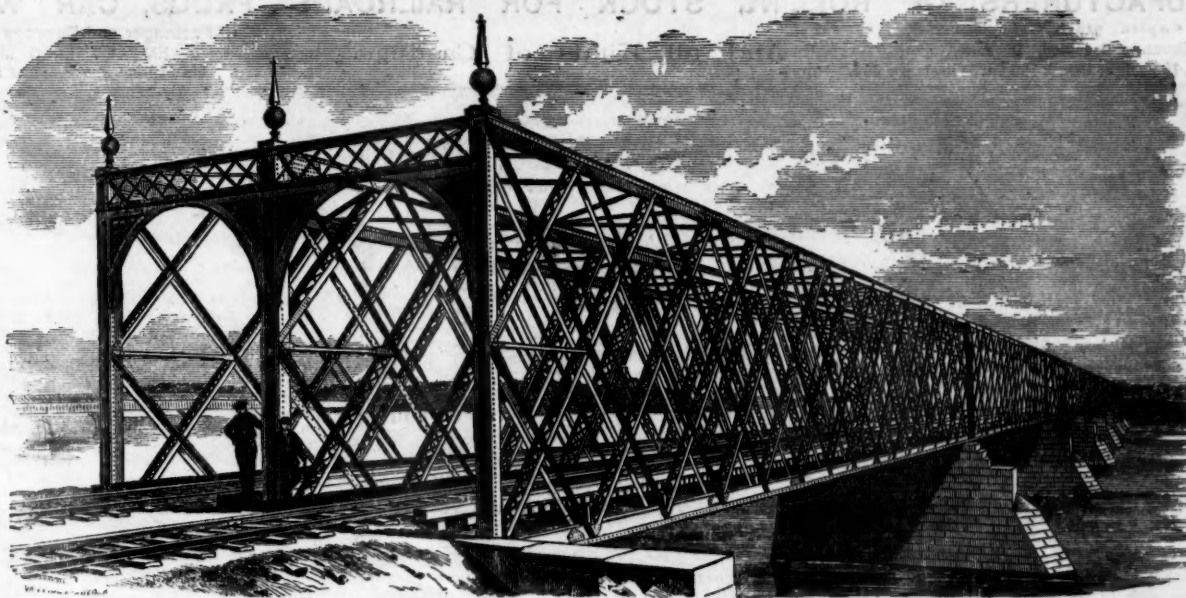
Liabilities.

Capital stock issued, 58,262 shares, par value \$100 each.....	\$5,826,200 00
8 per cent. currency debenture convertible bonds:	
First series, due Nov. 15, 1875.....	\$277,000
Second series, due May 15, 1881.....	298,000
Third series, due Feb. 15, 1887.....	484,000
Fourth series, due Aug. 15, 1892.....	996,000
Seven per cent. sterling debenture convertible bonds, due April 1, 1885.....	144,000 00
Seven per cent. currency debenture convertible bonds, due Oct. 15, 1878.....	598,000 00
Amount received from sale of old cars leased from Central and Southern Transportation Companies.....	389,400 01
Total liabilities.....	\$8,962,000 01

SURPLUS ACCOUNT (INVESTED IN ASSETS OF THE COMPANY).

Guarantee fund to provide for taxes in dispute and possible losses in adjustment of unsettled accounts.....	\$120,000 00
Sinking fund to represent possible depreciation in franchises and patents.....	300,000 00
Balance at credit of income account.....	1,804,790 71
Total.....	2,224,790 71
Total.....	\$11,287,390 72

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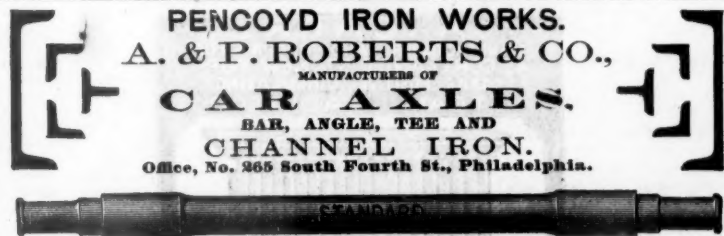
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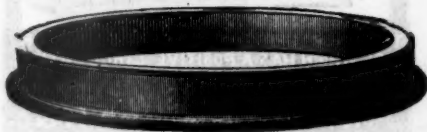
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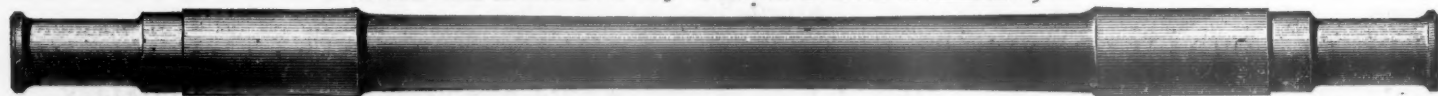
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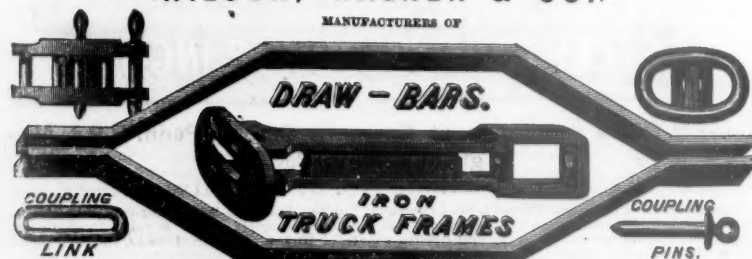


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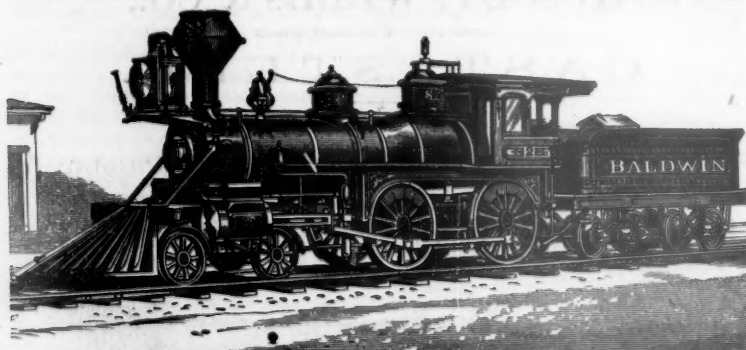


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